Strait of Georgia Sport Fishery Creel Survey Statistics for Salmon and Groundfish, 2007

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STRAIT OF GEORGIA SPORT FISHERY CREEL SURVEY STATISTICS FOR SALMON AND GROUNDFISH, 2007

by

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ABSTRACT

Carter, E.W., and Zetterberg, P.R. 2010. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 2007. Can. Manuscr. Rep. Fish. Aquat. Sci. 2914: xii + 125 p.

This report documents the 2007 catch and effort estimates and compares 2002 to 2006 data for the Strait of Georgia sport fishery creel survey. Catch and effort statistics are presented for each month, Pacific Fishery Management Area and by individual species. Strait of Georgia creel survey data collection began in 1980 and continues today. Historical data are presented from as far back as 1960 and comparisons are made between the current data and previous five years (2002 to 2006) to determine recent trends in catch and effort.

The 2007 Strait of Georgia statistics were derived from 6,250 fishing interviews and 93 aerial surveys. For the entire year anglers conducted an estimated 109,582 boat trips and kept 32,678 Chinook, 6,224 Coho, 191 Sockeye, 76,574 Pink, 5,439 Chum salmon, as well as 2,468 Halibut, 2,975 Lingcod and 7,067 rockfish. Comparative (May to September) effort increased by 1.4% from 95,153 boat trips in 2006 to 96,515 in 2007. Total salmon catch also increased by 76.2% from 62,698 in 2006 to 110,450 in 2007. Based on these estimates, the catch per boat trip (CPUE) for all salmon in 2007 was 1.14.

A total of 1,327 Chinook and 145 Coho salmon were examined for adipose fin clips. Of these, 26.2% of Chinook and 72.4% of Coho had adipose fin clips. The Chinook catch consisted of 5.2% age 2 fish, 43.0% age 3 fish, 44.0% age 4, and 7.8% age 5 and greater.

RÉSUMÉ

Carter, E.W., and Zetterberg, P.R. 2010. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 2007. Can. Manuscr. Rep. Fish. Aquat. Sci. 2914: xii + 125 p.

Ce rapport contient les chiffres de captures et d'effort de pêche pour l'année 2007 et fait une étude comparative de ces données avec celles enregistrées pour la période comprise entre 2002 et 2006 s'agissant des captures de pêche sportive concernant le détroit de Georgia. Les statistiques de capture et d'effort de pêche sont ventilées selon le mois, selon la zone de gestion des pêcheries du Pacifique et selon les diverses espèces pêchées. La campagne de recensement des captures effectuées dans le détroit de Georgia existe depuis 1980 et continue jusqu'à ce jour. Les plus anciennes données présentées datent de 1960 et les données actuelles ont été comparées à celles des cinq années précédentes (2002 à 2006) afin de dégager l'évolution récente des taux de capture et de l'effort de pêche.

Les statistiques établies pour 2007 concernant le détroit de Georgia sont issues d'une campagne de sondage qui a totalisé 6 250 interrogations de pêcheurs et 93 relevés aériens et qui a permis d'établir qu'au cours de l'année 2007, les pêcheurs à la ligne ont effectué environ 109 582 sorties de pêche pour un total de captures conservées (non remises à l'eau) de 32 678 saumons quinnats, 6 224 saumons cohos, 191 saumons rouges, 76 574 saumons roses, 5 439 saumons kétas, et de 2 468 flétans, 2 975 morues lingues et 7 067 sébastes. Le taux comparatif de l'effort de pêche (mai-septembre) a augmenté de 1,4 % et est passé de 95 153 sorties en 2006 à 96 515 en 2007. Le nombre total de saumons capturés a également augmenté de 76,2 %, passant de 62 698 en 2006 à 110 450 en 2007. Sur la base de ces chiffres, on peut induire qu'en 2007 le nombre de captures enregistré pour chaque sortie de pêche, toutes espèces de saumons confondues, a été de 1,14.

Un nombre total de 1 327 saumons quinnats et de 145 saumons cohos ont été contrôlés par observation des sujets marqués (ablation de la nageoire adipeuse). On a pu établir que 26,2 % des saumons quinnats et 72,4 % des saumons cohos observés étaient pourvus de leur nageoire adipeuse. L'étude a également permis d'établir que les captures de saumons quinnats étaient constituées à 5,2 % de poissons de 2 ans d'âge, 43,0 % de poissons de 3 ans d'âge, 44,0 % de poissons de 4 ans d'âge et 7,8 % de poissons de 5 ans d'âge ou plus.

INTRODUCTION

This report documents the 2007 catch and effort statistics with comparisons to the 2002 to 2006 survey for the Strait of Georgia (SG) sport fishery creel survey and presents the methodology for collecting these data. Data are presented in tables and graphs with catch and effort dating back to 1983. Catch and effort tables are displayed by month, Pacific Fishery Management Area (PFMA) and species. For comparison purposes and unless otherwise specified, the annual data presented are from the period May through September only.

The 2007 report is one of a series documenting the activities of the creel survey and providing official SG tidal sport fishery catch statistics. A list of previous reports in this series may be found in Appendix A.

BACKGROUND

Historically, the SG fishery supported what was one of the most valuable recreational fisheries in British Columbia. Coded-wire tag recoveries indicate catches consist primarily of Fraser River, Puget Sound and East Coast Vancouver Island fish stocks. There has been evidence of declining stocks since the 1970's (Argue et al. 1983). There is also evidence based on declining marine survival rates of salmon stocks (Cross et al. 1991; Beamish et al. 1994), that marine environmental factors may be involved. Various groups (First Nation, commercial, and recreational) on both sides of the Canada/U.S. border depend on these stocks.

The SG creel survey study area (Fig. 1, Appendix B) comprises over 5,900 km^2 of water surface area and has in excess of 2,400 km of shoreline. From its southern end near Victoria, the area extends about 290 km northwest past Campbell River and at its greatest width is about 32 km wide. Two major population centres, Vancouver and Victoria, and many smaller centres such as Nanaimo and Campbell River are located within the study area. Creel surveys in the Strait of Juan de Fuca (JDF) are conducted by two groups; Strait of Georgia (to Sheringham Pt.) and West Coast Vancouver Island (Sheringham Pt. west). PFMA 20 (SG) refers to the area east of Sheringham Pt. to Albert Head. Over 500 boat launch ramps, marinas and public wharves as well as thousands of private boat launching facilities provide ocean access.

The recreational fishery is active throughout the year but over 85% of the effort occurs in the summer months of May to September (Collicutt and Shardlow 1993). The most sought after species in the SG recreational fishery are Chinook (*Oncorhynchus tshawytscha*) and Coho (*O. kisutch*) salmon, but in recent years significant fisheries directed at Pink (*O. gorbuscha*), Sockeye (*O. nerka*), rockfish (*Sebastes* spp.) and particularly Halibut (*Hippoglossus stenolepis*) have developed in certain areas.

The recreational fishery remains the primary harvester of Chinook and Coho in the SG. Effort in the recreational fishery has fluctuated from about 200,000 boat trips in 1960 to peaks of 769,000 in 1980 and 600,000 in 1988 to an all time low of 92,117 boat trips in 2005.

Creel survey data are used for a variety of management and reporting purposes within Fisheries and Oceans Canada (DFO). Catch and effort information is also used by local people (both inside and outside DFO) to monitor the fishery in their area. In addition, creel survey information is used to predict the effect of regulation changes and to measure success of conservation actions imposed. The adipose clip information collected during the survey is provided to the Mark Recovery Program (Kuhn et al. 1988) through the Sport Head Recovery Program and used in combination with other data for exploitation rate, marine survival and stock distribution analyses.

OBJECTIVES

The specific objectives of the 2007 Strait of Georgia creel survey were:

1. To estimate the sport angler effort, catches and releases of Chinook, Coho, Chum (*O. keta*), Pink, Sockeye salmon, Halibut, Lingcod (*Ophiodon elongatus*), rockfish and other finfish by month for Pacific Fishery Management Area (PFMA) 13 through 20(SG), 28, and 29.

2. To estimate the catch rate of adipose-clipped Chinook and Coho in the sport fishery.

3. To estimate the age composition and mean length-at-age for Chinook, and length frequency for Chinook and Coho in the sport fishery.

METHODS

STUDY DESIGN

The design of the SG creel survey conducted in 2007 was similar to that used by DPA Consulting Ltd. (1982) with some modifications to the data analyses, sampling intensity, flight routes and data processing. It is comprised of two independent surveys: angler interviews and overflights. Angler interviews provide data on sport fishing catch per unit effort (CPUE) and daily activity patterns. Overflights provide estimates of the total sport fishing effort in the study area at the time of the aerial survey. These data are combined to provide monthly estimates of total sport fishing effort and total catch of salmon and groundfish in the sport fishery (English et al. 2002). In its simplest form, the estimated total catch is calculated by multiplying the estimated total effort by CPUE. For the purposes of this report, 'catch' is defined as fish landed as opposed to released.

The fishery was stratified according to the following criteria:

1. Month. The survey operated from 1 May to 31 October for the entire geographic area. PFMA 19 and 20(SG) received 12 months of survey coverage and PFMA 13 had additional coverage in April for 2007.

2. Geographic area. Catch and effort estimates were produced for PFMA's 13 through 19, 20(SG), 28, and 29.

3. Day type. Weekend and mid-week days were considered independently because sport fishing activity is known to differ for the two types of days.

4. Time of day. Sampling shifts were conducted during set time periods. A sampling shift is defined as a consecutive time period of interviewing anglers by one creel surveyor. From May to October sampling shifts occurred during one of three time periods within a day: early (0800 to 1400 hours), mid-day (1200 to 1800 hours) or late (1500 to 2100 hours). Due to shorter daylight hours during winter, only a single sampling shift occurred after October (1000 to 1600 hours).

Various landing sites were chosen as locations for sampling shifts. Site selection was based on four criteria: representativeness, traffic volume, site accessibility and adequate observation points. Discussions with local fishers, marina operators, Fishery Officers, and long term creel survey staff, along with data from previous surveys were used to choose sites that were representative of the local sport fishing activity (i.e. sites which were used by a wide cross-section of anglers). Sites with expected traffic volumes of more than 15 boats per day in the summer were considered as possible sampling locations. Expected traffic volumes for sites were compiled from previous surveys or from discussions with marina operators or local Fishery Officers.

Site accessibility refers to whether an interviewer can easily reach a site by car or ferry during the defined shift hours. Only sites with good accessibility were selected. As a result, landing sites on most of the islands in the SG were excluded from the survey. The final criterion, adequate observation points, was essential for interviewers to obtain an accurate count of all boats returning to a landing site.

Within each month, each chosen site was randomly allocated between four and 15 sampling shifts. These sampling shifts were divided equally among weekend and mid-week days and early, mid, and late daily time periods.

In 2007, interviews were conducted at 37 designated landing sites (boat ramps, marinas, or resorts, Fig. 1) representative of the sport fishing activity in the survey area at a particular time. Targets of desired precision and number of surveyors available dictated the number of sites selected in each area. Specific sites would be added or removed from the schedule as fishing effort shifted over the season. For each area, day type, and work block stratum, sampling shifts at a site were chosen on a random basis from the total number of shifts available. For definition of the above terms (day type, work block, shift) see Appendix C.

DFO coordinated data collection, data entry, and conducted the estimation of catch and effort statistics. Catch and effort estimates are generated by sub-PFMA (smaller geographic units within each PFMA) but data are summarized at the PFMA level.

DATA COLLECTION

Angler Interviews

Surveyors were stationed at boat ramps or marinas for sampling shifts to interview anglers as they returned from fishing. The number of boats returning to a site during a sampling shift as well as the number of interviews attempted and completed were recorded on a tally sheet. For each boating party landing, the following information was recorded on the interview form (Fig. 2):

1. Total number of licensed anglers in the boat
2. Time of landing
3. Whether the party had been sport fishing
4. Whether the trip included the services of an angling guide
5. Residency of anglers
6. Time of departure and length of trip
7. Time during which fishing lines were in the water
8. Average number of lines in the water
9. Catch Summary: -Total number and species of kept and released fish for each of the sub-PFMA's (possible to record for three separate sub-PFMA's).

-Number of hours spent fishing, type of fishing conducted and primary fishing location in each sub-PFMA

10. Adipose fin-clip status for Chinook and Coho
11. Number of hours directed at each species
12. Loss of catch to seals or sea lions.
13. Shellfish catch summary.

Interviewers are trained in fish identification and inspected the catch of each boating party willing to participate in the survey. Landed Chinook and Coho were checked for a missing adipose fin, which indicates that the fish may be of hatchery origin and possibly the presence of a coded-wire tag (Kuhn et al. 1988). In addition, scale samples for age determination and measurements of nose-fork length were taken during every sampling shift where Chinook and Coho were inspected.

Groundfish species were also biologically sampled. Lingcod landed were measured (fork length), sex was determined, and a portion of the dorsal fin was removed and placed in a labelled envelope for use in age determination (McFarlane and King, 2001; MacLellan, 2004). Other species including rockfish and Halibut were identified to species and measured (fork length).

Effort counts

Effort, as individual boats actively fishing, is counted via aerial surveys of the study area. Aerial surveys were conducted year round in PFMA's 19 and 20(SG) and from 1 May through 31 October inclusive for the entire study area. The study area is divided into approximately equal northern and southern sections for the purposes of aerial effort counts. Two airline companies (Pat Bay Air and Island Air) in Victoria and Comox, travelled along pre-defined routes in the southern and northern sections, respectively (Fig. 3a and b). Along with the pilot, each flight was staffed by a single observer trained to identify those boats actively engaged in sports fishing activity.

Flight paths and times of departure were designed to cover major concentrations of sport fishing activity at peak periods and number of overflights each month was governed by budget. Planes flew at an altitude of 150-300 m (500-1000 feet) to facilitate a broad range of vision and still allow easy identification of vessel type. Overflights conducted between May and September range between three to 4.5 hours covering a flight path of 600 to 670 km at speeds of 145 to 220 kph. During the January to April and October to December period in PFMA'S 19 and 20 (SG), flights were 1.5 hours covering a 200 km route. Days for overflights during a month were randomly selected for each day type (weekday and weekend). Flight paths are reviewed annually and adjustments are made based on observer reports of fishing activity outside of the current path.

DATA ANALYSIS

Data analysis included calculation of catch and effort statistics, calculation of variance of total fishing effort and catch, estimation of marked (coded-wire tagged) Chinook and Coho salmon, and the estimation of age and length composition of retained Chinook. Established methods and equations used to analyse the above data are found in Appendix C (English et al. 2002).

Throughout this document, between-year comparisons are made using data from May to September only. Unless otherwise indicated, references to annual values include all months and areas surveyed. Due to insufficient data in some months and from certain PFMA's, some summaries are presented by region. Three regions are defined: North Gulf represented by PFMA's 13-16; South Gulf represented by PFMA's 17, 18, 28, and 29 and Victoria represented by PFMA 19 and 20(SG).

RESULTS AND DISCUSSION

DISTRIBUTION OF SAMPLING EFFORT

The 2007 creel survey ran from May to October in all PFMA's of the SG. Additional creel survey coverage was provided throughout the year in PFMA's 19 and 20(SG) and during April in PFMA 13 (Table 1).

A total of 6,250 interviews with finfishing anglers at 37 landing sites, and 93 overflights were conducted in 2007 (Table 1). Monthly distribution of interviews generally reflected monthly distribution of fishing effort (number of boat trips; Fig. 4). While the survey goal is to attain interviews from 10% of fishing effort, total interviews in 2007 represent 5.7% of estimated total fishing effort for the entire study area (109,582 full year boat trips; Table 5). Interviews involving actively fishing anglers ranged in each PFMA from a low of 1.9% in PFMA 29 to a high of 33.0% in PFMA 20(SG) (Table 1).

All 2007 SG sport fishing creel survey catch and effort statistics are summarised for each species by month and PFMA. Fishing effort and catch statistics by species are presented for each combination of month and PFMA (Appendices D-1 to D-30).

Anglers made 96,515 boat trips during 2007 (May to September); this is a 1.4% increase in effort from 95,153 trips completed in 2006 but 26% below the five-year average of 129,869 trips (Table 2). Based on variables including economic, environmental, and stock status, estimated effort fluctuates annually (Fig. 5; Appendix H). Fishing effort followed the same general seasonal pattern as seen in previous years where effort levels climbed steadily from April, peaked in August and declined in September and October (Fig. 6). In 2007, about 80% of fishing effort occurred between May and September.

Certain sites are known to have considerable guided fishing effort. Unpublished data from previous surveys suggest that CPUE from guided boats differs markedly from unguided boats. Guided versus unguided was documented by interviewers, however, at this time the catch estimation program does not generate independent catch and effort estimates for the two types.

CREEL SURVEY SPORT FISHING CATCH

Total finfish sport kept catch in the SG creel survey for 2007 from January through December was estimated at 144,470 pieces and consisted of 84% (121,146) salmon, 11% (16,257) groundfish and 5% (7,067) rockfish (Table 5, 18, and 22). These values have only been expanded in areas where year-round surveys exist. Anglers released an additional 93,346 salmon, 55,517 groundfish, and 18,195 rockfish of mixed species for this same period (Table 6, 19 to 23). Comparisons of CPUE between salmon, groundfish, and rockfish in general are summarized in Appendices E-3 and E-6 by month and PFMA, respectively.

Chinook catch improved in the early 2000's but has declined over the past three years to below 30,000 (Table 2). Partially due to increased effort, catch increased (7.2%) from 26,728 in 2006 to 28,665 in 2007. CPUE was also higher in 2007 at 0.30 compared to 0.28 in 2006.

Coho catches have fluctuated widely, even within the 2000's. From a high of over one million pieces in 1988 catches have continued to decline. The 1999 Coho catch was an all time low of 315 pieces due to a majority of areas being closed to Coho retention resulting from extremely poor returns of specific stocks in 1998. Coho catch began to improve in the early 2000's as stocks showed some recovery as well as the advent of mark selective (adipose-clipped only) fisheries in selected areas on hatchery stocks. Since 2005, catches have dropped again as restrictions on Coho retention have been reintroduced.

Regulations

General regulations which affected the 2007 SG sport fishery for major finfish species are summarized below:

- All Coho, Sockeye, Pink and Chum must measure 30 cm or more (tip of nose to fork of tail) and the daily limit was four (4), possession eight (8). There was no annual limit on these species.
- The minimum size limit for Chinook was 62 cm. Daily limit of Chinook was two (2), possession of four (4). In a portion of PFMA 19/20 (Cadboro Bay to Sheringham Pt.), the minimum size limit for Chinook was 45 cm.

- The annual limit for Chinook coastwide was 30. The annual limit for PFMA's 13 to 19 (north of Cadboro Point) is 15 Chinook. The annual limit for PFMA's 19 and 20 (south of Cadboro Point to Sheringham Point) is 20 Chinook.
- Two (2) adipose marked Coho per day can be retained from June 01 to December 31.
- Recreational fisheries for Fraser River Sockeye in South Coast marine waters and the Fraser River were closed to sockeye retention.
- The daily sports limit for rockfish and Lingcod in PFMA's 13 to 20 east of Sheringham Point, 28, and 29 is zero (0). The rockfish and Lingcod fishery in these PFMA's will remain closed until further notice.
- The recreational Halibut fishery is open from February 01 to December 31, daily limit two (2), possession three (3).

For a comprehensive list of major finfish species and area regulations, please see Appendix I.

Salmon

Creel survey salmon sport catches for the SG in 2007 totalled 110,450 pieces for May to September and 121,146 when including PFMA 13 in April and PFMA 19 and 20 (SG) for the entire year (Tables 4 and 5). The catch consisted of 26% Chinook, 4% Coho, <1% Sockeye, 69% Pink, <1% Chum, and <1% unidentified salmon. Total catch is 13% higher than the 2002-2006 average of 97,397.

In 2007, anglers kept 28,665 Chinook (Table 2), compared to the five-year average from 2002 to 2006 of 38,176 (Table 2, Fig. 5). Within the previous five years, catch ranged from 26,728 in 2006 to 66,198 in 2002. Monthly Chinook catches increased steadily through June and July and peaked in August (Table 5, Fig. 7).

Seasonal (May to September) average CPUE (kept catch per boat trip) for Chinook has remained fairly constant over the past several years (Fig. 8). The 2002 to 2006 average of 0.29 is nearly identical to the 2007 CPUE of 0.30 (Fig. 8, Appendix E-1). Appendix H summarizes annual Chinook catches back to 1960.

Spatial distribution of Chinook catch followed a similar pattern to previous years with highest catches being in southern SG. During the May to September period PFMA 20(SG) recorded 47% of the estimated catch, followed by PFMA 13 (24%), 14 (13%), and 19 (4%) (Table 7, Fig. 9, Appendix D-2). CPUE was 0.43 in PFMA 20(SG), 0.36 in PFMA 15, 0.35 in PFMA 13, 0.31 in PFMA 14, and 0.24 in PFMA 19 (Appendix E-4). Peak catches occurred during July and August.

Coho catch in 2007 remained low, likely due to continued restrictions on Coho retention. Anglers kept 4,593 Coho which was 160% higher than 2006 (1,766) but below

the five-year average of 7,910 (Table 2, Fig. 10 and 11). Appendix H summarizes Coho catches back to 1960. Coho kept catch from May to September was 3,924 adipose-clipped, 636 unclipped, and 33 unknown for a total of 4,593 pieces (Appendix D-5). Of Coho with known mark status, 70% of adipose-clipped occurred in PFMA 20(SG) and 16% in PFMA 13. The majority of the unclipped Coho catch was also split between these two PFMA's; 50% in PFMA 20(SG) and 44% in PFMA 13 (Appendix D-5).

Low returns of Fraser River Sockeye relative to the forecast prompted a closure of all recreational Sockeye fishing in 2007. Given these conditions, we have not compared 2007 to previous years' data. Catch of odd year Pink salmon was highest since 2003 with an estimated catch of 76,560 (five-cycle average = 85,818) (Table 2, Fig. 12). Again, PFMA's 20(SG) and 13 had the greatest catches with 77% and 19%, respectively. Chum salmon catch was a low 416 pieces (five-year average = 3,462) during the May to September period but peaked during October at 5,023 pieces with 97% taken in PFMA 13 (Table 5, Fig. 13).

In 2007, PFMA's 20(SG) (33%) and 13 (18%) showed the highest effort expended with a total salmon CPUE of 2.19 and 1.38, respectively (Fig. 14, Appendix E-4). July and August continue to be the most successful fishing months at 0.91 and 2.16 salmon per trip. CPUE rose in October to 1.31 but this can be accounted for by the large Chum fishery in PFMA 13.

There were also significant numbers of salmon released in 2007. Releases included 32,903 Chinook (five-year average = 25,329), 20,302 Coho (five-year average = 27,498), 2,137 Sockeye (five-year average = 1,934), 29,485 Pink (three-cycle average = 28,695) as well as 3,341 unidentified salmon (five-year average = 9,517) (Table 3) for a total of 88,168 released salmon between May and September in 2007 (Tables 2 and 6). Releases were highest in PFMA 20(SG) (50,279) and PFMA 13 (24,411) which accounted for 80% of all releases in the SG (Table 8, 9, 10 and Appendix D-8).

Groundfish

The 2007 SG creel survey sport catch consisted of 23,324 groundfish, which made up 16% of the overall catch (Tables 18 and 22).

More accurate species identification has allowed catch estimates for most groundfish species, including rockfish. Previous reports (Hardie et al. 2003) have identified only three species of groundfish and nine species of rockfish; however, in 2007 an additional nine species of groundfish were identified by creel surveyors.

Comparing the five-year average catch estimate from 2002 to 2006, with the exception of Lingcod, Cabezon (*Scorpaenichthys marmoratus*), Greenling (*Hexagrammidae* spp.), and Starry Flounder (*Platichthys stellatus)*, groundfish catch in 2007 decreased. Halibut and Lingcod catches have increased relative to five-year averages by 159% (five-year average = 618, 2007 = 1,603) and 59% (five-year average =

1,873, 2007 = 2,971), respectively. Catches of rockfish continue to decline (DFO, 2002) as additional rockfish conservation areas (RCA's) are identified. Rockfish catches decreased by about 51% from the five-year average of 13,720 to 6,757 in 2007 (Tables 15 to 17, Fig. 15).

Angler effort has also shown a decline over recent years from a high of 191,141 boat trips in 2002 to a low of 92,117 in 2005. Effort in 2007 of 96,515 trips increased from 2006 (95,153), but was well below the five-year average of 129,869.

The majority of recreational groundfish catch occurred in July, August, and September, reflecting the high fishing effort in the summer (Tables 18 and 22; Fig. 6). Catch (by PFMA) for rockfish was highest in PFMA's 17, 20(SG), and 16, with 24%, 21%, and 18% of the total catch, respectively (Table 24). The only areas without any estimated Lingcod catch were PFMA's 28 and 29. Lingcod catches were highest in PFMA 13 (33% of total), followed by PFMA 17 (20% of total; Table 20). Halibut were only caught in PFMA 19 (78%) and 20(SG) (22%; Table 20). Table 26 provides a groundfish catch summary for the entire survey period by major catch areas. Tables 19 and 21 provide a summary of groundfish releases by month and PFMA respectively, including a breakdown of Lingcod by legal versus sub-legal.

Since 2001, nine species of rockfish have been identified throughout the survey with catch and release estimates generated for each (Tables 22 through 25). Only two species, Copper (*Sebastes caurinus*) and Quillback (*S. maliger*), showed significant catches in the SG (Table 27). The "other" rockfish category in this table consists of Black (*S. melanops*), Canary (*S. pinniger*), China (*S. nebulosus*), Redstripe (*S. proriger*), Tiger (*S. nigrocinctus*), Yelloweye (*S. ruberrimus*), Yellowtail (*S. flavidus*) and unidentified species. Table 27 provides a rockfish catch summary of major species for the entire survey period caught by PFMA.

Catch per unit effort for rockfish (Fig. 16; Appendix E-2, E-5,) was low throughout the survey period ranging from 0.02 in May to 0.12 in July and averaging 0.06 fish per boat trip. Catch per unit effort for Halibut was 0.02 and Lingcod was 0.03 fish per boat trip (Appendix E-1).

A taxonomic reference of all species reported in this document is presented in Appendix F.

BIOLOGICAL DATA

Adipose-clipped Chinook and Coho

In 2007, 1,327 Chinook and 145 Coho were examined for adipose fin clips. The number of adipose-clipped Chinook and Coho observed and the total fish inspected by month and region are detailed in Tables 28 and 29. These data are presented by region as

some PFMA's had insufficient numbers of fish examined for clips in some months, and those data were included with other PFMA's.

Among Chinook examined during the May to September period, 18.1% had clips. The observed proportion of Chinook adipose-clips was 25.5% for Victoria region, 14.7% for South Gulf, and 8.1% for the North Gulf (Table 28). Among Coho examined for this same period, 83.3% had adipose clips. Regionally, percentages of adipose clips were 81.8%, 88.9%, and 81.6% for Victoria, South Gulf, and North Gulf, respectively (Table 29). The 2007 creel survey catch program generated estimates of adipose-clipped, wild and not visually checked Coho by the month and PFMA (Appendix D-5 and D-6).

A total of 267 Chinook with adipose-clips were returned to the Sport Head Recovery Program for coded-wire tag (CWT) extraction and decoding in 2007. The number of CWT's recovered by stock are summarized in Table 30. Of particular note is the low number of recoveries of Cowichan River Chinook. This is likely due to a catastrophic event which destroyed all hatchery fry from the 2004 brood year.

Catch-At-Age for Chinook

During 2007, 973 and 649 Chinook were sampled for length and age analysis, respectively. Of the age samples, 577 were aged: 72 samples were not aged due to regenerated scales, lack of fresh water annuli, etc. Table 31 shows the monthly number and percent age composition of Chinook sampled for age. All ages represent the total age (including both freshwater and marine life stages). The age data are summarised graphically in Figure 17. The monthly age proportions were applied to the estimated monthly Chinook catches to provide a breakdown by age group (Table 32).

From 2002 to 2006, the Chinook creel survey sport catch in the SG showed a slightly higher catch of 3-year olds (Age 3 – 47.2%; Age 4 – 42.7%). There was a near even split in 2007 (Age 3 – 43.0%; Age 4 – 44.0%, Table 34).

Mean Length-At-Age for Chinook

The monthly mean fork length (FL) at age for the 577 Chinook for which both length and age data were available are presented in Table 33. Figure 18 shows the length frequency distribution for all measured Chinook. The overall mean length of age 3 and 4 fish was 681 and 789 mm, respectively. The largest salmon sampled was an 1130 mm FL Chinook landed at Sewell's Marina (PFMA 29).

There was an increase in the percentage of sub-legal size Chinook (45 cm in the PFMA's 19 and 20 (SG) and 62 cm in PFMA's 13-18, 28, and 29) retained in the SG sport fishery in 2007 compared to historic creel survey data (Table 35). Of the 783 retained Chinook that were measured from May to September, 1% was sub-legal in the PFMA's 19 and 20 (SG) and 5% in PFMA's 13-18, 28 and 29. These percentages have

dropped and remained low since the peak in 1989 when the 62 cm size li vas implemented (Table 35).

SUMMARY

A sport fishery creel survey was conducted in the Strait of Georgia (SG) in 2007 to estimate the catches of all the important recreational finfish species and the total sport fishing boat trips. In this report data are presented by both month and Pacific Fishery Management Area (PFMA).

For the entire creel survey period (May to October in all PFMA's, plus April in PFMA 13 and a full 12 months for PFMA 19 and the portion of PFMA 20 east of Sheringham Point (20 SG)), sport fishers made an estimated 109,582 boat trips. A total of 6,250 finfishing parties (5.7%) were interviewed at 37 landing sites in the SG creel survey area. A total of 93 overflights were used to count fishing effort.

During this same period, sport fishers landed an estimated total finfish catch of 144,470 pieces of which 84% were salmon and 16% were groundfish. The 121,146 landed salmon consisted of 32,678 Chinook, 6,224 Coho, 5,439 Chum, 76,574 Pink, 191 Sockeye, and 39 unidentified salmon. Anglers released an additional 93,346 salmon of mixed species. The 23,324 landed groundfish consisted of 2,468 Halibut, 2,975 Lingcod, 7,067 rockfish, and 10,814 other groundfish. Comparisons are made to previous data, particularly the previous five years, to determine trends in catch, effort and catch per unit effort. Based on biological samples, we established that 26.2% of Chinook and 72.4% of Coho were adipose fin-clipped. In addition, age composition and length frequency distributions of Chinook are presented.

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TABLES

Table 1. Number of fishing interviews by month and Pacific Fishery Management Area (PFMA) and number of overflights for Strait of Georgia (SG) creel survey, 2007.

Month	PFMA										Monthly Total	Monthly Overflights[1]
	13	14	15	16	17	18	19	20(SG)	28	29		
Jan	-	-	-	-	-	5	62	29	-	-	96	6
Feb	-	-	-	-	-	3	88	41	-	-	132	6
Mar	-	-	-	-	-	3	130	65	-	-	198	6
Apr	24	-	1	-	-	8	119	60	-	-	212	11
May	31	11	39	33	35	17	153	76	15	9	419	8
Jun	142	39	20	29	91	27	98	187	18	10	661	9
Jul	167	54	23	52	81	25	201	485	41	26	1155	9
Aug	249	114	44	65	103	47	278	629	86	36	1651	10
Sep	168	97	19	39	92	47	198	337	50	35	1082	12
Oct	265	1	8	0	15	15	66	65	20	4	459	7
Nov	-	-	-	-	-	-	78	55	-	-	133	5
Dec	-	-	-	-	-	-	16	36	-	-	52	4
Total	1046	316	154	218	417	197	1487	2065	230	120	6250	93

[1]Number of monthly overflights represents flight sequences per departure inclusive of sub-regionally separated tandem flights.

Interview showing in PFMA 15 outside the normal operating months are results of interviews conducted in PFMA 13.

Table 2. Tidal effort (boat trips) and kept and released sport salmon catch estimates for the SG, 1983 to 2007[1].

Year	Effort	Kept					Released				
		Chinook	Coho	Sockeye	Pink	Chum	Chinook	Coho	Sockeye	Pink	Chum
1983	435335	139982	344664	-	53093	-	-	-	-	-	-
1984	562113	315913	401628	-	8991	-	-	-	-	-	-
1985	549986	196888	670753	15	89764	-	-	-	-	-	-
1986	502334	146781	530345	873	3138	606	-	-	-	-	-
1987	506550	94351	602075	8491	89833	682	-	-	-	-	-
1988	561495	85370	947481	16271	8486	663	-	-	-	-	-
1989	515762	101365	447555	13345	122840	3329	170588	-	-	-	-
1990	477995	85967	581952	30606	11549	652	181348	-	-	-	-
1991	394285	98831	123571	23401	248971	888	150429	-	-	-	-
1992	397322	92725	505289	6745	19075	843	134651	-	-	-	-
1993	459112	109060	777072	23600	172713	1766	167960	-	-	-	-
1994	410939	61312	273624	14038	18453	289	133835	-	-	-	-
1995	294339	56829	72999	5897	183859	1481	107784	-	-	-	-
1996	280354	87856	127107	2365	7779	3469	176607	-	-	-	-
1997	249439	53730	98540	16819	111003	481	60794	-	-	-	-
1998	146931	18914	1833	4474	6848	3556	32506	20570	-	-	-
1999	150847	41500	310	491	26458	790	13043	6021	-	-	-
2000[2]	148070	27193	4296	6367	9762	1098	50755	34577	468	3710	41
2001[2]	179654	44314	13310	3252	118592	405	53182	121527	2083	37284	214
2002[2]	191141	66198	6357	5133	11950	597	58133	32689	3203	796	1627
2003[2]	156670	34442	16226	2917	104556	910	24155	43653	377	25468	20
2004[2]	114262	36207	10410	3340	4527	8649	22307	35564	1438	834	1349
2005[2]	92117	27306	4789	6949	68479	4507	15199	21156	2619	23332	454
2006[2]	95153	26728	1766	29800	1594	2644	6853	4430	2034	301	11
2007[2]	96515	28665	4593	191	76560	416	32903	20302	2137	29485	0

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 3. Tidal effort (boat trips) estimates, and kept and released sport salmon catches for not identified salmonids and Atlantic salmon for the SG, 2000 to 2007[1].

Year	Effort	Kept		Released	
		Not Identified Salmonids	Atlantic Salmon	Not Identified Salmonids	Atlantic Salmon
2000[2]	148070	0	0	44778	0
2001[2]	179654	337	0	39945	0
2002[2]	191141	26	0	12063	0
2003[2]	156670	63	0	9601	0
2004[2]	114262	79	0	16178	0
2005[2]	92117	0	0	6319	0
2006[2]	95153	165	0	3425	0
2007[2]	96515	25	0	3341	0

[1]This table uses creel estimate values from May to September inclusively for historical comparisons. Creel data for not identified salmonids and Atlantic salmon were not collected prior to 2000.

[2]Data estimated using analysis approach of English et al. (2002).

Table 4. Total effort, and kept and released sport salmon catch estimates of all salmon for the SG, 1983 to 2007[1].

Year	Effort	Total Salmon Kept	Total Salmon Released	Total Kept and Released
1983	435335	537739	-	537739
1984	562113	726532	-	726532
1985	549986	957420	-	957420
1986	502334	681743	-	681743
1987	506550	795432	-	795432
1988	561495	1058271	-	1058271
1989	515762	688434	170588	859022
1990	477995	710726	181348	892074
1991	394285	495662	150429	646091
1992	397322	624677	134651	759328
1993	459112	1084211	167960	1252171
1994	410939	367716	133835	501551
1995	294339	321065	107784	428849
1996	280354	228576	176607	405183
1997	249439	280573	60794	341367
1998	146931	35625	53076	88701
1999	150847	69549	19064	88613
2000[2]	148070	48716	134328	183044
2001[2]	179654	180211	254234	434445
2002[2]	191141	90261	106884	197145
2003[2]	156670	159115	103273	262388
2004[2]	114262	63213	77670	140884
2005[2]	92117	112030	69080	181110
2006[2]	95153	62698	17054	79753
2007[2]	96515	110450	88168	198618

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 5. Salmon kept by month[4], effort, and species for the SG, 2007.

Month	Effort	SE	Chin[1]	SE	Coho	SE	Sock[2]	SE	Pink	SE	Chum	SE	NO ID[3]	SE	Total Monthly Kept	Total Monthly SE
Jan	1128	167	872	244	0	0	0	0	0	0	0	0	0	0	872	244
Feb	1496	159	1075	228	0	0	0	0	0	0	0	0	0	0	1075	228
Mar	1143	200	398	126	0	0	0	0	0	0	0	0	0	0	398	126
Apr	2118	214	477	121	0	0	0	0	0	0	0	0	0	0	477	121
May	11561	2431	2126	1159	0	0	0	0	0	0	0	0	0	0	2126	1159
Jun	11134	883	4357	588	43	46	0	0	43	46	0	0	20	17	4462	592
Jul	21221	1144	5722	730	1414	297	27	21	12169	2440	21	16	5	4	19359	2564
Aug	33144	1156	12726	1174	1356	261	165	86	57359	3763	0	0	0	0	71605	3951
Sep	19455	1696	3733	522	1780	288	0	0	6990	1220	395	90	0	0	12898	1360
Oct	5321	495	322	108	1620	374	0	0	14	14	5023	1242	14	14	6993	1302
Nov	805	209	414	127	11	8	0	0	0	0	0	0	0	0	425	127
Dec	1057	182	456	212	0	0	0	0	0	0	0	0	0	0	456	212
Total	109582	3560	32678	2022	6224	617	191	89	76574	4648	5439	1246	39	23	121146	5256

[1]Chin – Chinook

[2]Sock = Sockeye

[3]NO ID = unidentified salmon

[4]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 6. Salmon released by month[4], effort, and species for the SG, 2007.

Month	Effort	SE	Chin[1]	SE	Coho	SE	Sock[2]	SE	Pink	SE	Chum	SE	NO ID[3]	SE	Total Monthly Released	Total Monthly SE
Jan	1128	167	518	152	11	13	0	0	0	0	0	0	7	6	535	153
Feb	1496	159	202	83	0	0	0	0	0	0	0	0	0	0	202	83
Mar	1143	200	90	36	0	0	0	0	0	0	0	0	0	0	90	36
Apr	2118	214	112	45	0	0	0	0	0	0	0	0	0	0	112	45
May	11561	2431	1930	386	18	22	0	0	0	0	0	0	0	0	1948	387
Jun	11134	883	6104	662	32	18	0	0	0	0	0	0	70	49	6206	664
Jul	21221	1144	9848	1150	5004	829	274	91	4202	832	0	0	1022	508	20350	1723
Aug	33144	1156	10963	1500	8621	2774	1837	397	24581	2662	0	0	1207	439	47210	4169
Sep	19455	1696	4058	563	6627	798	26	19	702	237	0	0	1042	423	12454	1090
Oct	5321	495	602	236	659	202	0	0	0	0	330	127	2068	695	3658	772
Nov	805	209	330	150	0	0	0	0	0	0	0	0	168	133	498	201
Dec	1057	182	84	68	0	0	0	0	0	0	0	0	0	0	84	68
Total	109582	3560	34840	2143	20971	3011	2137	408	29485	2799	330	127	5583	1064	93346	4775

[1]Chin – Chinook

[2]Sock = Sockeye

[3]NO ID = unidentified salmon

[4]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 7. Salmon kept by PFMA[4], effort, and species for the SG, 2007.

PFMA	Effort	SE	Chin[1]	SE	Coho	SE	Sock[2]	SE	Pink	SE	Chum	SE	NO ID[3]	SE	Total PFMA Kept	Total PFMA SE
13	19725	1013	6912	1021	801	225	0	0	14240	2222	5251	1243	20	17	27224	2752
14	12364	2458	3815	1242	237	133	0	0	527	164	0	0	0	0	4580	1260
15	2420	198	869	186	0	0	0	0	98	54	0	0	0	0	967	193
16	3698	254	431	96	10	7	0	0	0	0	0	0	0	0	441	96
17	6460	336	832	138	16	9	0	0	17	12	0	0	0	0	865	139
18	5829	510	280	72	22	15	0	0	770	217	4	3	0	0	1075	229
19	12092	635	2895	329	90	39	7	6	1805	273	0	0	5	4	4802	430
20(SG)	36414	2100	15727	1138	4768	554	185	88	58954	4063	159	76	14	14	79806	4257
28	6060	362	561	125	241	56	0	0	69	26	17	30	0	0	888	143
29	4521	428	356	119	39	14	0	0	93	70	8	8	0	0	497	139
Total	109582	3560	32678	2022	6224	617	191	89	76574	4648	5439	1246	39	23	121146	5256

[1]Chin – Chinook

[2]Sock = Sockeye
[3]NO ID = unidentified salmon
[4]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 8. Salmon released by PFMA[4], effort, and species for the SG, 2007.

PFMA	Effort	SE	Chin[1]	SE	Coho	SE	Sock[2]	SE	Pink	SE	Chum	SE	NO ID[3]	SE	Total PFMA Released	Total PFMA SE
13	19725	1013	10745	1534	9280	2773	909	325	2763	1031	330	127	384	267	24411	3361
14	12364	2458	5524	944	493	134	0	0	246	115	0	0	72	38	6335	961
15	2420	198	2599	531	60	38	0	0	0	0	0	0	0	0	2659	532
16	3698	254	1289	211	14	9	0	0	0	0	0	0	0	0	1303	212
17	6460	336	1094	173	154	64	0	0	19	19	0	0	15	11	1282	185
18	5829	510	970	249	28	17	64	40	163	73	0	0	11	10	1237	264
19	12092	635	1179	192	239	62	0	0	444	112	0	0	175	139	2037	269
20(SG)	36414	2100	8190	843	10185	1151	1143	243	25835	2596	0	0	4927	1020	50279	3142
28	6060	362	1869	286	284	97	0	0	15	9	0	0	0	0	2168	302
29	4521	428	1381	322	232	103	21	22	1	1	0	0	0	0	1635	338
Total	109582	3560	34840	2143	20971	3011	2137	408	29485	2799	330	127	5583	1064	93346	4775

[1]Chin – Chinook

[2]Sock = Sockeye

[3]NO ID = unidentified salmon

[4]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 9. Legal and sub-legal Chinook[1] kept and released by month[2] with effort for the SG, 2007.

Month	Effort	SE	Chinook Kept	SE	Legal Chinook Released	SE	Sub-Legal Chinook Released	SE	Total Monthly Chinook Released	Total Monthly Chinook Released SE
Jan	1128	167	872	244	335	127	182	84	518	152
Feb	1496	159	1075	228	122	67	80	50	202	83
Mar	1143	200	398	126	39	24	52	27	90	36
Apr	2118	214	477	121	37	28	75	36	112	45
May	11561	2431	2126	1159	561	223	1369	315	1930	387
Jun	11134	883	4357	588	613	185	5491	636	6104	662
Jul	21221	1144	5722	730	505	172	9343	1137	9848	1150
Aug	33144	1156	12726	1174	1552	528	9411	1404	10963	1500
Sep	19455	1696	3733	522	226	96	3832	554	4058	563
Oct	5321	495	322	108	14	14	588	236	602	236
Nov	805	209	414	127	96	62	234	137	330	150
Dec	1057	182	456	212	8	11	76	67	84	68
Total	109582	3560	32678	2022	4106	654	30734	2041	34840	2143

[1]39 unidentified salmon were kept, and 5583 unidentified salmon were released in SG in 2007 and were not included.
[2]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 10. Legal and sub-legal Chinook[1] kept and released by PFMA[2] with effort for the SG, 2007.

PFMA	Effort	SE	Chinook Kept	SE	Legal Chinook Released	SE	Sub-Legal Chinook Released	SE	Total PFMA Chinook Released	Total PFMA Chinook Released SE
13	19725	1013	6912	1021	744	436	10000	1470	10745	1534
14	12364	2458	3815	1242	255	150	5269	932	5524	944
15	2420	198	869	186	9	6	2590	531	2599	531
16	3698	254	431	96	6	7	1283	211	1289	211
17	6460	336	832	138	205	58	889	163	1094	173
18	5829	510	280	72	576	221	394	116	970	250
19	12092	635	2895	329	441	125	738	145	1179	192
20(SG)	36414	2100	15727	1138	1870	383	6319	751	8190	843
28	6060	362	561	125	0	0	1869	286	1869	286
29	4521	428	356	119	0	0	1381	322	1381	322
Total	109582	3560	32678	2022	4106	654	30734	2041	34840	2143

[1]39 unidentified salmon were kept, and 5583 unidentified salmon were released in SG in 2007 and were not included.
[2]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13. in April

Table 11. Tidal effort estimates, and kept and released sport catch of groundfish group 1 (Lingcod, Dogfish, Halibut, Cabezon) for the SG, 1983 to 2007[1].

Year	Effort	Groundfish Kept				Groundfish Released				Groundfish Total			
		Lingcod	Halibut	Dogfish	Cabezon	Lingcod	Halibut	Dogfish	Cabezon	Lingcod	Halibut	Dogfish	Cabezon
1983	435335	54167	0	3703	0	0	0	0	0	54167	0	3703	0
1984	562113	121033	0	4485	0	0	0	0	0	121033	0	4485	0
1985	549986	70910	0	4336	0	0	0	0	0	70910	0	4336	0
1986	502334	65071	0	5108	0	0	0	0	0	65071	0	5108	0
1987	506550	56952	0	3741	0	0	0	0	0	56952	0	3741	0
1988	561495	59826	0	0	0	0	0	0	0	59826	0	0	0
1989	515762	45950	0	0	0	0	0	0	0	45950	0	0	0
1990	477995	30461	0	2249	0	0	0	0	0	30461	0	2249	0
1991	394285	7978	0	3324	0	0	0	0	0	7978	0	3324	0
1992	397322	5711	0	1677	0	0	0	0	0	5711	0	1677	0
1993	459112	6735	0	1893	0	0	0	0	0	6735	0	1893	0
1994	410939	6790	0	1244	0	0	0	0	0	6790	0	1244	0
1995	294339	4743	0	1873	0	0	0	0	0	4743	0	1873	0
1996	280354	3658	0	1498	0	0	0	0	0	3658	0	1498	0
1997	249439	3937	0	2528	0	0	0	0	0	3937	0	2528	0
1998	146931	3234	2125	0	0	0	0	0	0	3234	2125	0	0
1999	150847	3679	2391	0	0	0	0	0	0	3679	2391	0	0
2000[2]	148070	6082	454	1863	814	36434	47	41974	825	42516	501	43837	1639
2001[2]	179654	8769	305	1543	1905	62514	88	36297	982	71283	394	37840	2887
2002[2]	191141	3859	450	598	1326	60633	108	42609	750	64492	558	43207	2076
2003[2]	156670	249	682	1396	919	32401	74	36651	324	32650	756	38048	1243
2004[2]	114262	512	538	1082	659	22636	152	55757	318	23148	690	56839	977
2005[2]	92117	564	959	403	407	18680	34	22838	407	19244	992	23241	814
2006[2]	95153	4179	463	281	498	20044	25	29003	148	24223	488	29284	645
2007[2]	96515	2971	1603	332	425	14827	280	25810	136	17798	1883	26142	561

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 12. Tidal effort estimates, and kept and released sport catch of groundfish group 2 (Greenling, English Sole, Rock Sole, Other Sole) for the SG, 2000 to 2007[1].

Year	Effort	Groundfish Kept				Groundfish Released				Groundfish Total			
		Green-ling	English Sole	Rock Sole	Other Sole	Green-ling	English Sole	Rock Sole	Other Sole	Green-ling	English Sole	Rock Sole	Other Sole
2000[2]	148070	4487	269	6615	51	5259	25	3497	246	9746	294	10112	297
2001[2]	179654	7702	115	13992	221	6174	1	4847	675	13876	116	18839	897
2002[2]	191141	5230	135	5540	6	6174	31	4601	403	11404	167	10142	409
2003[2]	156670	2029	1392	7944	0	4168	93	2595	43	6197	1485	10539	43
2004[2]	114262	1204	0	5940	0	7532	0	3040	0	8735	0	8980	0
2005[2]	92117	1571	432	2985	0	2932	0	4783	0	4502	432	7768	0
2006[2]	95153	4090	0	3153	0	6070	0	3188	53	10161	0	6341	53
2007[2]	96515	1923	0	4075	0	2924	0	2230	0	4847	0	6305	0

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 13. Tidal effort estimates, and kept and released sport catch of groundfish group 3 (Pacific Cod, Pacific Tomcod, Flounder, Starry Flounder) catch for the SG, 2000 to 2007[1].

Year	Effort	Groundfish Kept				Groundfish Released				Groundfish Total			
		Pacific Cod	Pacific Tomcod	Flounder	Starry Flounder	Pacific Cod	Pacific Tomcod	Flounder	Starry Flounder	Pacific Cod	Pacific Tomcod	Flounder	Starry Flounder
2000[2]	148070	0	0	0	13310	0	0	0	3952	0	0	0	17262
2001[2]	179654	0	0	0	10660	0	0	0	3591	0	0	0	14251
2002[2]	191141	0	0	74	4039	0	0	0	1378	0	0	74	5417
2003[2]	156670	805	8	16756	7330	154	88	441	997	959	96	17197	8327
2004[2]	114262	0	6	0	1547	57	0	0	667	57	6	0	2214
2005[2]	92117	0	0	0	495	52	0	0	179	52	0	0	674
2006[2]	95153	0	0	0	2021	201	0	0	576	201	0	0	2597
2007[2]	96515	0	0	0	1470	0	0	0	1102	0	0	0	2573

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 14. Tidal effort estimates, and kept and released sport catch of groundfish group 4 (Ratfish, Skates, and other groundfish) for the SG, 2000 to 2007[1].

Year	Effort	Groundfish Kept			Groundfish Released			Groundfish Total		
		Ratfish	Skates	Other Groundfish[3]	Ratfish	Skates	Other Groundfish[3]	Ratfish	Skates	Other Groundfish[3]
2000[2]	148070	0	0	182	698	0	2047	698	0	2229
2001[2]	179654	10	0	880	200	0	3501	210	0	4381
2002[2]	191141	0	0	512	2191	0	5031	2191	0	5542
2003[2]	156670	0	8	797	597	149	1709	597	157	2505
2004[2]	114262	15	0	1425	541	23	265	556	23	1691
2005[2]	92117	0	0	0	441	49	418	441	49	418
2006[2]	95153	0	0	406	18	0	552	18	0	958
2007[2]	96515	0	6	1479	122	9	4273	122	15	5752

[1]This table uses creel estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

[3]See Appendix G for a description of species or groups included in Other Groundfish.

Table 15. Tidal effort estimates, and kept and released sport catch of rockfish group 1 (China, Copper, Quillback and Tiger Rockfish) for the SG, 2000 to 2007[1].

Year	Effort	Rockfish Kept				Rockfish Released				Rockfish Total			
		China	Copper	Quillback	Tiger	China	Copper	Quillback	Tiger	China	Copper	Quillback	Tiger
2000[2]	148070	160	9738	28866	43	24	1788	5033	0	184	11526	33899	43
2001[2]	179654	12	18485	27055	121	83	9077	5412	4	95	27562	32467	125
2002[2]	191141	0	10753	11336	262	6	7738	7720	26	6	18492	19056	287
2003[2]	156670	126	6446	5538	38	13	2229	7939	28	139	8675	13477	66
2004[2]	114262	237	2508	3308	156	101	4549	6523	0	338	7057	9831	156
2005[2]	92117	0	3044	1947	0	7	1637	3698	1	7	4681	5645	1
2006[2]	95153	603	4175	2685	29	623	4179	3596	81	1225	8354	6281	109
2007[2]	96515	138	2176	2842	151	23	2556	4341	0	161	4732	7182	151

[1]This table uses all estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 16. Tidal effort estimates, and kept and released sport catch of rockfish group 2 (Black, Canary, Redstripe and Yelloweye Rockfish) for the SG, 2000 to 2007.

Year	Effort	Rockfish Kept				Rockfish Released				Rockfish Total			
		Black	Canary	Red stripe	Yellow eye	Black	Canary	Red stripe	Yellow eye	Black	Canary	Red stripe	Yellow eye
2000[2]	148070	237	333	26	3796	82	30	0	247	319	363	26	4043
2001[2]	179654	666	2365	64	7265	897	0	0	279	1563	2365	64	7543
2002[2]	191141	0	131	136	2772	0	0	0	367	0	131	136	3139
2003[2]	156670	227	119	185	3103	83	176	0	100	310	295	185	3203
2004[2]	114262	278	19	0	2722	153	113	0	110	431	132	0	2832
2005[2]	92117	115	84	0	648	79	112	0	310	194	195	0	958
2006[2]	95153	199	169	8	713	0	24	69	880	199	194	76	1593
2007[2]	96515	258	30	0	316	288	4	24	61	547	35	24	377

[1]This table uses all estimate values from May to September inclusively for historical comparisons.

[2] Data estimated using analysis approach of English et al. (2002).

Table 17. Tidal effort estimates, and kept and released sport catch of rockfish group 3 (Yellowtail and Other Rockfish) for the SG, 2000 to 2007[1].

Year	Effort	Rockfish Kept		Rockfish Released		Rockfish Total	
		Yellowtail	Other Rockfish[3]	Yellowtail	Other Rockfish[3]	Yellowtail	Other Rockfish
2000[2]	148070	10	4871	0	21590	10	26461
2001[2]	179654	178	4367	0	26212	178	30579
2002[2]	191141	106	614	167	17219	273	17833
2003[2]	156670	81	290	402	11548	482	11837
2004[2]	114262	314	454	24	8269	338	8723
2005[2]	92117	227	393	21	10338	248	10732
2006[2]	95153	101	1201	13	10831	114	12032
2007[2]	96515	63	783	18	10259	81	11042

[1]This table uses all estimate values from May to September inclusively for historical comparisons.

[2]Data estimated using new analysis approach (English 2002).

[3]See Appendix G for a description of rockfish species included in Other Rockfish.

Table 18. Groundfish kept by month[2], effort, and species for the SG, 2007.

Month	Effort	SE	Halibut	SE	Ling-cod	SE	Dog-fish	SE	Rock Sole	SE	Green-ling	SE	Starry Flounder	SE	Other Ground-fish[1]	SE	Total Monthly Kept	Total Monthly SE
Jan	1128	167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	1496	159	117	58	0	0	12	13	0	0	59	36	0	0	0	0	189	70
Mar	1143	200	123	43	0	0	5	5	0	0	36	31	0	0	2	4	166	54
Apr	2118	214	416	133	2	1	0	0	0	0	112	59	0	0	64	21	595	147
May	11561	2431	565	167	35	38	0	0	764	357	119	72	386	191	45	27	1913	446
Jun	11134	883	269	172	259	64	30	19	594	222	39	25	40	20	6	4	1237	291
Jul	21221	1144	93	43	1160	335	82	42	895	310	754	278	318	161	313	145	3614	580
Aug	33144	1156	375	150	1123	409	126	84	1024	863	454	120	566	201	235	101	3903	1003
Sep	19455	1696	301	110	394	98	94	49	798	342	557	225	160	103	1316	1322	3621	1396
Oct	5321	495	184	117	0	0	0	0	515	320	173	118	25	19	45	33	942	362
Nov	805	209	24	33	3	2	0	0	0	0	2	1	0	0	3	2	32	33
Dec	1057	182	0	0	0	0	0	0	0	0	46	64	0	0	0	0	46	64
Total	109582	3560	2468	363	2975	543	349	108	4591	1112	2352	414	1496	338	2028	1335	16257	1934

[1]See Appendix G for a description of identified species included in Other Groundfish.
[2]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 19. Groundfish released by month[3], effort, and species for the SG, 2007.

Month	Effort	SE	Halibut	SE	Legal Ling-cod	SE	Sub-legal Ling-cod	SE	Dog-fish	SE	Rock Sole	SE	Green-ling	SE	Starry Flound-der	SE	Other Ground-fish[1]	SE	Total Monthly Rel.[2]	Total Monthly SE
Jan	1128	167	0	0	0	0	13	9	10	13	0	0	7	6	0	0	0	0	30	17
Feb	1496	159	5	4	7	7	93	53	235	153	0	0	19	14	0	0	89	72	449	177
Mar	1143	200	0	0	12	12	141	137	257	87	0	0	54	38	0	0	46	28	510	169
Apr	2118	214	0	0	0	0	152	65	97	41	0	0	61	39	0	0	154	60	464	105
May	11561	2431	93	78	211	158	491	151	702	320	937	306	58	39	9	6	2623	1524	5125	1604
Jun	11134	883	29	18	240	102	1473	312	1947	599	150	71	1114	1142	256	109	1129	1096	6338	1729
Jul	21221	1144	24	16	854	342	4727	700	10804	1409	278	102	523	297	299	148	222	63	17730	1649
Aug	33144	1156	25	18	309	107	2392	369	8748	1088	511	192	621	176	465	266	252	92	13324	1216
Sep	19455	1696	108	66	487	132	3643	891	3609	946	353	163	608	207	73	32	315	95	9195	1338
Oct	5321	495	0	0	29	15	302	112	1035	818	343	185	107	88	6	7	98	56	1921	853
Nov	805	209	0	0	41	56	164	64	21	21	0	0	5	5	0	0	30	29	261	92
Dec	1057	182	0	0	27	38	30	26	97	75	0	0	8	11	0	0	8	11	170	89
Total	109582	3560	285	106	2218	432	13621	1258	27563	2288	2573	455	3185	1216	1109	325	4964	1886	55517	3516

[1]See Appendix G for a description of identified species included in Other Groundfish.
[2]Rel. = Released
[3]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 20. Groundfish kept by PFMA[2], effort, and species for the SG, 2007.

PFMA	Effort	SE	Halibut	SE	Ling-cod	SE	Dog-fish	SE	Rock Sole	SE	Green-ling	SE	Starry Flounder	SE	Other Ground-fish[1]	SE	Total PFMA Kept	Total PFMA SE
13	19725	1013	0	0	973	477	0	0	0	0	208	104	0	0	173	134	1354	506
14	12364	2458	0	0	37	18	0	0	58	39	59	30	238	135	6	4	398	144
15	2420	198	0	0	9	8	41	44	0	0	3	4	54	32	0	0	106	55
16	3698	254	0	0	502	153	60	70	451	302	49	23	239	128	0	0	1301	370
17	6460	336	0	0	602	144	42	34	194	65	95	50	204	120	7	6	1144	208
18	5829	510	0	0	245	81	32	22	411	174	126	72	19	17	19	12	850	207
19	12092	635	1926	318	183	58	55	26	187	136	892	204	23	24	231	53	3496	411
20(SG)	36414	2100	541	174	425	110	39	24	99	54	803	325	56	40	1336	1324	3299	1380
28	6060	362	0	0	0	0	69	43	1721	484	89	65	264	127	152	83	2294	513
29	4521	428	0	0	0	0	12	11	1471	924	28	15	400	214	104	46	2015	950
Total	109582	3560	2468	363	2975	543	349	108	4591	1112	2352	414	1496	338	2028	1335	16257	1934

[1]See Appendix G for a description of identified species included in Other Groundfish.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 21. Groundfish released by PFMA[3], effort, and species for the SG, 2007.

PFMA	Effort	SE	Halibut	SE	Legal Ling-cod	SE	Sub-legal Ling-cod	SE	Dog-fish	SE	Rock Sole	SE	Green-ling	SE	Starry Floun-der	SE	Other Ground-fish[1]	SE	Total PFMA Rel.[2]	Total PFMA SE
13	19725	1013	24	18	118	53	2551	522	4078	671	0	0	444	304	0	0	179	115	7393	912
14	12364	2458	10	11	30	24	547	173	4529	672	75	83	59	33	64	26	4	5	5319	701
15	2420	198	0	0	48	25	214	85	77	35	0	0	0	0	7	7	0	0	347	96
16	3698	254	0	0	56	47	821	216	661	201	83	70	49	32	400	260	28	23	2098	404
17	6460	336	5	5	469	134	2491	473	3374	944	777	187	134	42	304	146	118	59	7671	1093
18	5829	510	0	0	707	332	1188	599	1282	382	976	321	246	131	0	0	2367	1518	6767	1744
19	12092	635	211	102	398	183	2363	360	8070	1476	284	135	312	105	158	72	712	133	12507	1550
20(SG)	36414	2100	35	22	392	135	3429	718	4512	1001	148	107	1941	1163	91	70	1425	1101	11974	2029
28	6060	362	0	0	0	0	16	9	394	113	164	158	0	0	28	22	114	75	717	209
29	4521	428	0	0	0	0	2	1	585	243	65	54	0	0	57	72	18	14	726	260
Total	109582	3560	285	106	2218	432	13621	1258	27563	2288	2573	455	3185	1216	1109	325	4964	1886	55517	3516

[1]See Appendix G for a description of identified species included in Other Groundfish.
[2]Rel. = Released
[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 22. Rockfish kept by month[2], effort, and species for the SG, 2007.

Month	Effort	SE	Black	SE	Canary	SE	China	SE	Copper	SE	Quill-back	SE
Jan	1128	167	0	0	0	0	0	0	0	0	0	0
Feb	1496	159	0	0	0	0	0	0	26	16	51	46
Mar	1143	200	0	0	0	0	0	0	0	0	0	0
Apr	2118	214	0	0	0	0	0	0	42	26	10	11
May	11561	2431	4	5	13	14	0	0	48	28	52	39
Jun	11134	883	40	34	6	5	0	0	328	129	210	66
Jul	21221	1144	71	40	5	4	14	14	1075	295	976	243
Aug	33144	1156	96	51	5	4	26	22	408	85	1098	404
Sep	19455	1696	48	39	1	2	97	77	318	114	505	166
Oct	5321	495	0	0	35	32	0	0	109	72	26	16
Nov	805	209	0	0	0	0	0	0	0	0	11	11
Dec	1057	182	0	0	0	0	0	0	0	0	0	0
Total	109582	3560	258	83	65	36	138	82	2353	361	2940	508

Rockfish kept by month (cont'd)

Month	Red-stripe	SE	Tiger	SE	Yellow-eye	SE	Yellow-tail	SE	Other Rockfish[1]	SE	Total Monthly Kept	Total Monthly SE
Jan	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	78	49
Mar	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	52	29
May	0	0	0	0	9	6	0	0	84	55	210	75
Jun	0	0	30	23	0	0	0	0	33	29	647	154
Jul	0	0	66	53	111	88	30	36	217	119	2565	417
Aug	0	0	54	33	153	49	34	34	191	66	2063	427
Sep	0	0	0	0	43	20	0	0	258	142	1270	262
Oct	0	0	0	0	0	0	0	0	0	0	170	81
Nov	0	0	0	0	0	0	0	0	0	0	11	11
Dec	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	151	67	316	103	63	49	783	206	7067	681

[1]See Appendix G for a description of rockfish species included in Other Rockfish.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 23. Rockfish released by month[2], effort, and species for the SG, 2007.

Month	Effort	SE	Black	SE	Canary	SE	China	SE	Copper	SE	Quill-back	SE
Jan	1128	167	0	0	0	0	0	0	0	0	0	0
Feb	1496	159	0	0	0	0	0	0	37	28	0	0
Mar	1143	200	0	0	0	0	0	0	0	0	0	0
Apr	2118	214	0	0	0	0	0	0	0	0	0	0
May	11561	2431	0	0	0	0	0	0	37	16	111	58
Jun	11134	883	20	18	0	0	0	0	459	173	540	214
Jul	21221	1144	9	9	0	0	0	0	1532	577	2326	972
Aug	33144	1156	199	122	0	0	10	14	135	44	800	220
Sep	19455	1696	60	47	4	4	13	10	394	120	564	160
Oct	5321	495	0	0	0	0	0	0	41	18	77	64
Nov	805	209	0	0	0	0	0	0	0	0	0	0
Dec	1057	182	0	0	0	0	0	0	0	0	0	0
Total	109582	3560	288	132	4	4	23	17	2634	617	4418	1035

Rockfish released by month (cont'd)

Month	Red-stripe	SE	Tiger	SE	Yellow-eye	SE	Yellow-tail	SE	Other Rockfish[1]	SE	Total Monthly Released	Total Monthly SE
Jan	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	80	38	116	48
Mar	0	0	0	0	0	0	0	0	58	29	58	29
Apr	0	0	0	0	0	0	0	0	130	38	130	38
May	0	0	0	0	0	0	0	0	436	215	583	223
Jun	0	0	0	0	27	21	0	0	1344	257	2389	378
Jul	0	0	0	0	0	0	18	19	3745	714	7630	1337
Aug	24	24	0	0	34	22	0	0	2792	835	3995	874
Sep	0	0	0	0	0	0	0	0	1942	516	2979	556
Oct	0	0	0	0	6	7	0	0	90	39	214	78
Nov	0	0	0	0	0	0	0	0	48	31	49	31
Dec	0	0	0	0	0	0	0	0	52	34	52	34
Total	24	24	0	0	67	31	18	19	10717	1262	18195	1751

[1]See Appendix G for a description of rockfish species included in Other Rockfish.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 24. Rockfish kept by PFMA[2], effort, and species for the SG, 2007.

PFMA	Effort	SE	Black	SE	Canary	SE	China	SE	Copper	SE	Quill-back	SE
13	19725	1013	0	0	0	0	0	0	4	3	415	216
14	12364	2458	0	0	0	0	0	0	10	9	18	12
15	2420	198	0	0	0	0	0	0	0	0	8	6
16	3698	254	0	0	0	0	13	13	7	6	1103	389
17	6460	336	78	45	11	6	0	0	859	254	488	177
18	5829	510	0	0	0	0	0	0	251	91	99	58
19	12092	635	67	47	7	5	28	23	345	127	270	68
20(SG)	36414	2100	113	53	13	14	97	77	357	163	540	144
28	6060	362	0	0	31	31	0	0	442	119	0	0
29	4521	428	0	0	4	6	0	0	78	28	0	0
Total	109582	3560	258	83	65	36	138	82	2353	361	2940	508

PFMA	Red-stripe	SE	Tiger	SE	Yellow-eye	SE	Yellow-tail	SE	Other Rockfish[1]	SE	Total PFMA Catch	Total PFMA SE
13	0	0	0	0	87	87	0	0	0	0	505	233
14	0	0	0	0	16	8	30	36	10	9	84	41
15	0	0	9	8	42	24	0	0	0	0	60	26
16	0	0	41	32	89	43	0	0	0	0	1253	393
17	0	0	0	0	51	17	0	0	212	114	1699	334
18	0	0	88	57	0	0	0	0	148	73	585	142
19	0	0	0	0	6	6	0	0	77	52	798	161
20(SG)	0	0	0	0	12	12	34	34	336	147	1502	281
28	0	0	12	8	12	8	0	0	0	0	496	123
29	0	0	1	1	1	1	0	0	0	0	83	29
Total	0	0	151	67	316	103	63	49	783	206	7067	681

[1]See Appendix G for a description of rockfish species included in Other Rockfish.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 25. Rockfish released by PFMA[2], effort, and species for the SG, 2007.

PFMA	Effort	SE	Black	SE	Canary	SE	China	SE	Copper	SE	Quill-back	SE
13	19725	1013	0	0	0	0	0	0	0	0	927	871
14	12364	2458	0	0	0	0	0	0	0	0	0	0
15	2420	198	0	0	3	4	0	0	0	0	240	100
16	3698	254	0	0	1	2	0	0	0	0	773	260
17	6460	336	115	89	0	0	0	0	1602	310	1292	376
18	5829	510	21	18	0	0	0	0	910	532	464	223
19	12092	635	22	24	0	0	23	17	46	36	274	111
20(SG)	36414	2100	130	93	0	0	0	0	37	28	371	164
28	6060	362	0	0	0	0	0	0	36	23	66	63
29	4521	428	0	0	0	0	0	0	3	3	9	11
Total	109582	3560	288	132	4	4	23	17	2634	617	4418	1035

PFMA	Red-stripe	SE	Tiger	SE	Yellow-eye	SE	Yellow-tail	SE	Other Rockfish[1]	SE	Total PFMA Released	Total PFMA SE
13	0	0	0	0	0	0	0	0	2539	870	3466	1231
14	0	0	0	0	0	0	0	0	689	206	689	206
15	0	0	0	0	6	7	0	0	5	4	254	100
16	0	0	0	0	15	14	0	0	167	62	957	268
17	0	0	0	0	27	21	0	0	2408	606	5444	783
18	0	0	0	0	0	0	0	0	649	242	2045	626
19	0	0	0	0	20	17	0	0	1627	330	2013	352
20(SG)	24	24	0	0	0	0	18	19	2519	503	3099	539
28	0	0	0	0	0	0	0	0	104	52	207	85
29	0	0	0	0	0	0	0	0	10	7	22	14
Total	24	24	0	0	67	31	18	19	10717	1262	18195	1751

[1]See Appendix G for a description of rockfish species included in Other Rockfish.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 26. Groundfish Catch Summary for SG, 2007.

Groundfish Species	Catch	% of Total Groundfish Catch	Major Catch PFMA's
Halibut *(Hippoglossus stenolepis)*	2,468	10.6%	19
Lingcod *(Ophiodon elongatus)*	2,975	12.8%	13
Rockfish *(Sebastes* spp.)	7,067	30.3%	17/20SG
Other Groundfish	10,814	46.3%	19/20SG
Total	**23,324**	**100%**	

Table 27. Rockfish Catch Summary for SG, 2007.

Rockfish Species	Catch	% Total Rockfish Catch	Major Catch PFMA
Copper (*Sebastes caurinus*)	2,353	33.3%	17
Quillback (*Sebastes maliger*)	2,940	41.6%	16
Other (*Sebastes spp.*)	1,774	25.1%	20SG
Total	**7,067**	**100%**	

Table 28. Number of adipose-clipped Chinook observed by month[1] and region for the SG, 2007.

Month		North Gulf	South Gulf	Victoria	Total
Jan	Unmarked	0	6	73	79
to	Marked	0	4	89	93
Mar	Total	0	10	162	172
	Unmarked	3	0	13	16
Apr	Marked	0	2	18	20
	Total	3	2	31	36
	Unmarked	31	10	10	51
May	Marked	3	5	10	18
	Total	34	15	20	69
	Unmarked	77	15	73	165
Jun	Marked	9	8	23	40
	Total	86	23	96	205
	Unmarked	67	14	117	198
Jul	Marked	6	1	73	80
	Total	73	15	190	278
	Unmarked	112	44	151	307
Aug	Marked	9	3	21	33
	Total	121	47	172	340
	Unmarked	50	27	55	132
Sep	Marked	3	2	12	17
	Total	53	29	67	149
	Unmarked	1	2	3	6
Oct	Marked	0	0	5	5
	Total	1	2	8	11
Nov	Unmarked	0	0	25	25
to	Marked	0	0	42	42
Dec	Total	0	0	67	67
	Unmarked	341	118	520	979
Total	Marked	30	25	293	348
	Total	371	143	813	1327

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 29. Number of adipose-clipped Coho observed by month[1] and region for the SG, 2007.

Month		North Gulf	South Gulf	Victoria	Total
Jan	Unmarked	0	0	0	0
to	Marked	0	0	0	0
Mar	Total	0	0	0	0
	Unmarked	0	0	0	0
Apr	Marked	0	0	0	0
	Total	0	0	0	0
	Unmarked	0	0	0	0
May	Marked	0	0	0	0
	Total	0	0	0	0
	Unmarked	0	0	1	1
Jun	Marked	0	0	0	0
	Total	0	0	1	1
	Unmarked	0	0	3	3
Jul	Marked	0	0	28	28
	Total	0	0	31	31
	Unmarked	1	0	1	2
Aug	Marked	10	12	4	26
	Total	11	12	5	28
	Unmarked	6	3	5	14
Sep	Marked	21	12	13	46
	Total	27	15	18	60
	Unmarked	1	0	17	18
Oct	Marked	0	0	5	5
	Total	1	0	22	23
Nov	Unmarked	0	0	2	2
to	Marked	0	0	0	0
Dec	Total	0	0	2	2
	Unmarked	8	3	29	40
Total	Marked	31	24	50	105
	Total	39	27	79	145

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 30. Origin of coded-wire tagged Chinook caught in the Strait of Georgia, 2007.

Origin	Country	Number	Percent
DOME CR	CAN	1	0.4%
L QUALICUM R	CAN	1	0.4%
ROBERTSON CR	CAN	2	0.7%
HARRISON R	CAN	3	1.1%
SHUSWAP R LOW	CAN	3	1.1%
WOSS R	CAN	3	1.1%
COWICHAN R	CAN	4	1.5%
CHEMAINUS R	CAN	5	1.9%
CHILLIWACK R	CAN	5	1.9%
PHILLIPS R/JNST	CAN	5	1.9%
BIG QUALICUM R	CAN	13	4.9%
QUINSAM R	CAN	13	4.9%
PUNTLEDGE R	CAN	16	6.0%
NANAIMO R	CAN	70	26.2%
BIG SOOS CR	USA	1	0.4%
FINCH CR	USA	1	0.4%
LYONS FERRY HATCHERY	USA	1	0.4%
WA PROD AREA SPS	USA	1	0.4%
WELLS HATCHERY	USA	1	0.4%
NOOKSACK -SF	USA	2	0.7%
DESCHUTES R	USA	3	1.1%
GEORGE ADAMS (PURDY)	USA	3	1.1%
WASHINGTON UNKNOWN	USA	3	1.1%
CLEAR CR	USA	5	1.9%
NOOKSACK R	USA	5	1.9%
STILLAGUAMISH R -NF	USA	5	1.9%
CHAMBERS CR	USA	6	2.2%
GROVERS CR	USA	7	2.6%
ISSAQUAH CR	USA	7	2.6%
MINTER CR	USA	7	2.6%
VOIGHT CR	USA	7	2.6%
SAMISH (FRIDAY CR)	USA	15	5.6%
SKYKOMISH R	USA	18	6.7%
SKAGIT R	USA	25	9.4%
	Total	267	100%

Table 31. Monthly[2] number and percent age[1] composition of Chinook sampled for age in the Strait of Georgia Creel Survey, 2007.

Month	Age 2		Age 3		Age 4		Age 5		Age 6		Total Sampled
	n	%	n	%	n	%	n	%	n	%	
Jan - Mar	0	0.0%	24	37.5%	39	60.9%	1	1.6%	0	0.0%	64
Apr	0	0.0%	8	33.3%	16	66.7%	0	0.0%	0	0.0%	24
May	0	0.0%	33	60.0%	21	38.2%	1	1.8%	0	0.0%	55
Jun	0	0.0%	55	61.1%	27	30.0%	8	8.9%	0	0.0%	90
Jul	4	3.4%	53	45.7%	50	43.1%	9	7.8%	0	0.0%	116
Aug	10	6.8%	46	31.3%	71	48.3%	20	13.6%	0	0.0%	147
Sep	13	19.1%	23	33.8%	26	38.2%	5	7.4%	1	1.5%	68
Oct	1	16.7%	3	50.0%	2	33.3%	0	0.0%	0	0.0%	6
Nov - Dec	2	28.6%	3	42.9%	2	28.6%	0	0.0%	0	0.0%	7
Total	30		248		254		44		1		577
Overall age composition of catch	5.20%		42.98%		44.02%		7.63%		0.17%		

[1]For the purposes of this report, age is defined as the year of life caught based on the Gilbert-Rich age.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 32. Monthly[2] estimated catches at age[1] of Chinook for the Strait of Georgia, 2007.

Month	Age 2	Age 3	Age 4	Age 5	Age 6	Total
Jan - Mar	0	879	1429	37	0	2345
Apr	0	159	318	0	0	477
May	0	1276	812	39	0	2126
Jun	0	2662	1307	387	0	4357
Jul	197	2615	2467	444	0	5722
Aug	866	3982	6146	1731	0	12726
Sep	714	1263	1427	275	55	3733
Oct	54	161	107	0	0	322
Nov - Dec	248	373	248	0	0	870
Total	2079	13370	14262	2912	55	32678
Annual Percentage	5.20%	42.98%	44.02%	7.63%	0.17%	100%

Standard errors are not listed by age class due to unknown errors in aging.

[1]For the purposes of this report, age is defined as the year of life caught based on the Gilbert-Rich age.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 33. Monthly[2] mean nose-fork length (L) at age[1] of Chinook sampled in the Strait of Georgia, 2007.

Month	Age 2		Age 3		Age 4		Age 5		Age 6		Total Sampled
	n	L (mm)	n	L (mm)	n	L (mm)	n	L (mm)	n	L (mm)	
Jan - Mar	0	-	24	578	39	677	1	950	0	-	64
Apr	0	-	8	601	16	713	0	-	0	-	24
May	0	-	33	684	21	779	1	675	0	-	55
Jun	0	-	55	700	27	810	8	836	0	-	90
Jul	4	491	53	687	50	803	9	874	0	-	116
Aug	10	591	46	706	71	814	20	895	0	-	147
Sep	13	590	23	707	26	865	5	923	1	935	68
Oct	1	510	3	695	2	750	0	-	0	-	6
Nov - Dec	2	480	3	628	2	645	0	-	0	-	7
Avg.	30	532	248	665	254	762	44	859	1	935	577

[1]For the purposes of this report, age is defined as the year of life caught based on the Gilbert-Rich age.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Table 34. Percent Age[1] Composition of Chinook, Strait of Georgia creel survey, 1983 to 2007.

Catch Year	2	3	4	5+	Reference
1983	57.1	25.5	14.2	3.1	Shardlow et al. (1989).
1984	21.6	67.3	9.4	1.7	Shardlow and Collicutt (1989a)
1985	6.6	70.8	20.6	2	Shardlow and Collicutt(1989b)
1986	10.9	44.9	40.4	3.8	Shardlow and Collicutt (1989c)
1987	7.8	62.1	25	5.2	Shardlow and Collicutt 1989d)
1988	26.4	35.3	35.4	2.8	Shardlow and Collicutt (1989e)
1989	3.1	83.3	10.5	3.1	Collicutt and Shardlow (1990)
1990	4	37	53	6	Collicutt and Shardlow (1992)
1991	2	67	25	6	Hardie et al. 1999
1992	7	58	28	7	Hardie et al. 1999
1993	1	69	26	4	Hardie et al. 1999
1994	2	50	40	8	Hardie et al. 1999
1995	2	62	29	7	Hardie et al. 1999
1996	1	70	26	3	Hardie et al. 1999
1997	0	66	29	5	Hardie et al. 1999
1998	5	31	55	9	Hardie et al. 1999
1999	0.3	73.4	21.4	4.9	Hardie et al. 2001
2000	2.2	56.6	35	6.2	Hardie et al. 2002
2001	1.4	59	32.8	4.4	Hardie et al. 2003
2002	2.1	53.9	41.5	2.5	Unpublished data
2003	3.9	45.7	43.4	7.0	Unpublished data
2004	6.8	46.2	41.7	5.3	Unpublished data
2005	6.6	44.0	45.4	4.0	Unpublished data
2006	5.4	46.2	41.6	6.8	Unpublished data
2007	5.2	43.0	44.0	7.8	Calculated from this report

[1]For the purposes of this report, age is defined as the year of life caught based on the Gilbert-Rich age.

Table 35. Sub-legal Chinook retention, Strait of Georgia creel survey, 1989 to 2007[1].

Year	Victoria[2]	Strait of Georgia[3]	Reference
1989	2%	20%	Collicutt and Shardlow, 1990
1990	1%	10%	Collicutt and Shardlow, 1992
1991	<1%	7%	Collicutt and Shardlow, 1993
1992	2%	2%	Hardie et al. 1999
1993	1%	2%	Hardie et al. 1999
1994	0%	2%	Hardie et al. 1999
1995	0%	3%	Hardie et al. 1999
1996	0%	1%	Hardie et al. 1999
1997	0%	2%	Hardie et al. 1999
1998	1%	6%	Hardie et al. 1999
1999	0%	<1%	Hardie et al. 2001
2000	1%	2%	Hardie et al. 2002
2001	1%	2%	Hardie et al. 2003
2002	0%	2%	Unpublished data
2003	<1%	1%	Unpublished data
2004	0%	2%	Unpublished data
2005	<1%	3%	Unpublished data
2006	2%	1%	Unpublished data
2007	1%	5%	Calculated from this report

[1]This table is calculated using values from May to September inclusively for historical comparisons.

[2]Victoria represents PFMA's 19 and 20(SG).

[3]Strait of Georgia represents PFMA's 13 to 18, 28 and 29.

FIGURES

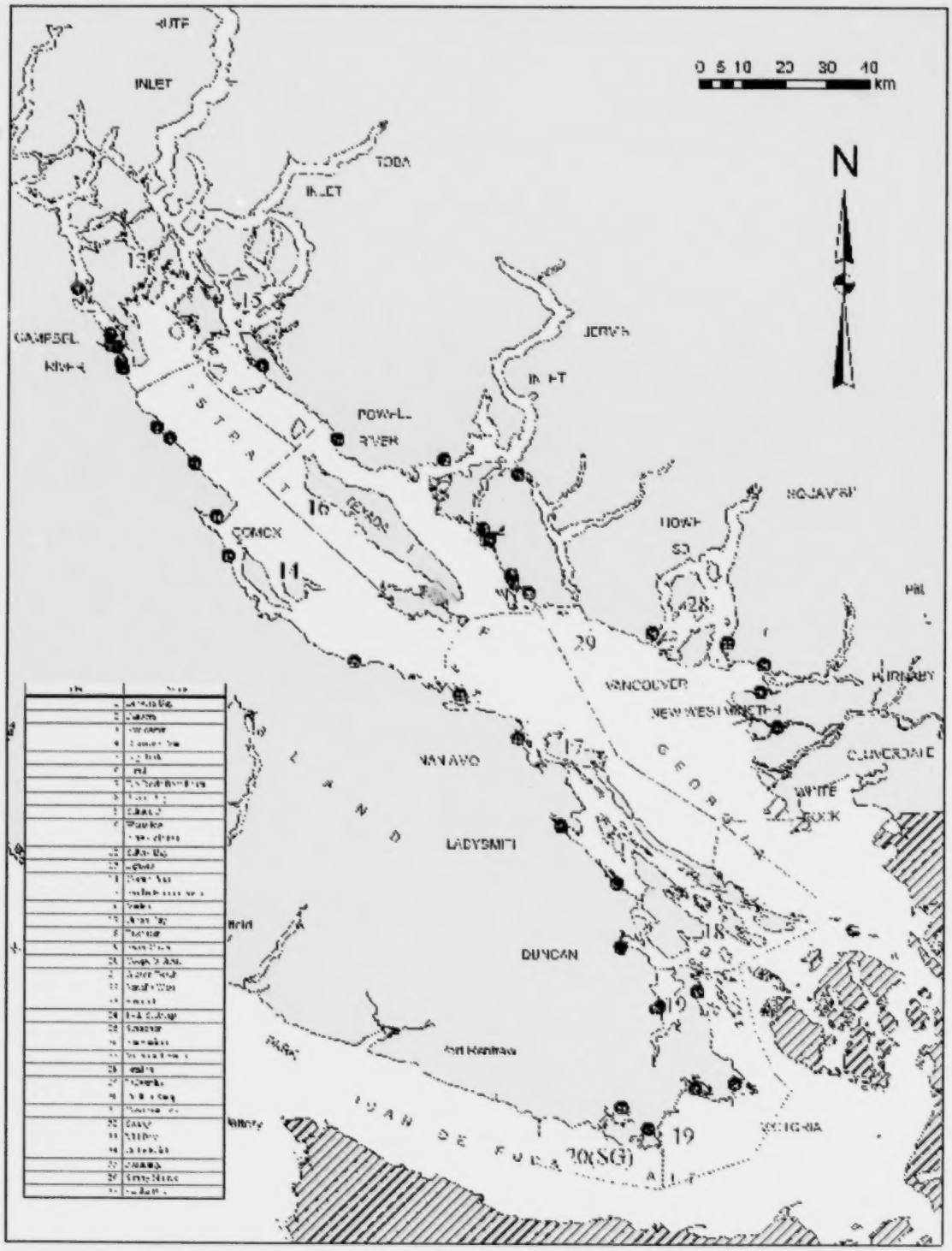


Figure 1. SG creel survey study area and landing site locations, 2007.

Fisheries and Oceans Canada — **Sport Fishing Creel Survey**

Landing Site# 103 Interviewer# 24 Date 17 08 04 (DD/ MM/ YY) Interview# 1 Page 1 of 3

Today's Boat Trip Completed

1. Number of Anglers: 2 (= sum of question #4)
2. Time of Landing(24Hrs) 11:15 TimeBlock 6
3. Sport Fishing(Y=1 N=0) 1 Guided? (Y=1 N=0) 0
4. Residence of Anglers: BC 2 Rest of Can ____ US ____ Other ____
5. Time of Departure(24Hrs) 07:00 Length of Boat Trip(Hrs) 4

Assessment Code

0 = Complete Form
1 = Adipose Not Checked
2 = Shell Fishing Only
3 = Fish not seen (part or all)
4 = Refusal
5= Incomplete Form (circle missing information)

0

6. Time Lines were in the water (Mark Appropriate Blocks)
7. Number of lines in the water for Fishing Party 2
8. Catch Summary

Sub Area: 20D	Time: 2	Gear: 2
Species	**Kept**	**R.Legal**	**R.Sublegal**
124	1		

	Clipped	Unclipped
Chinook		
Coho		

Salmon Location	Chart: 20	Site 13
Rockfish Location	Chart:	Site
Groundfish Location	Chart:	Site:
Shellfish Location	Chart:	Site:

☐ 1 Before 7:00
☒ 2 7:00-7:59
☒ 3 8:00-8:59
☐ 4 9:00-9:59
☐ 5 10:00-10:59
☐ 6 11:00-11:59
☐ 7 12:00-12:59
☐ 8 13:00-13:59
☐ 9 14:00-14:59
☐ 10 15:00-15:59
☐ 11 16:00-16:59
☐ 12 17:00-17:59
☐ 13 18:00-18:59
☐ 14 19:00-19:59
☐ 15 20:00-20:59
☐ 16 After 21:00

6. Time Lines were in the water (Mark Appropriate Blocks)
7. Number of lines in the water for Fishing Party 2
8. Catch Summary

Sub Area: 19E	Time: 2	Gear: 6
Species	**Kept**	**R.Legal**	**R.Sublegal**
467	1		

	Clipped	Unclipped
Chinook		
Coho		

Salmon Location	Chart:	Site
Rockfish Location	Chart:	Site
Groundfish Location	Chart: 19	Site: 2
Shellfish Location	Chart:	Site:

☐ 1 Before 7:00
☐ 2 7:00-7:59
☐ 3 8:00-8:59
☒ 4 9:00-9:59
☒ 5 10:00-10:59
☐ 6 11:00-11:59
☐ 7 12:00-12:59
☐ 8 13:00-13:59
☐ 9 14:00-14:59
☐ 10 15:00-15:59
☐ 11 16:00-16:59
☐ 12 17:00-17:59
☐ 13 18:00-18:59
☐ 14 19:00-19:59
☐ 15 20:00-20:59
☐ 16 After 21:00

				Chinook Only		Coho and Chinook						
Species	Sub area	Length (mm)	Sex N/C=0 Male=1 Female=2 Unable=9	Scale Book No.	Scale No 1-10	Adipose Clip N=0 Y=1 N/C=9	Head Tag No.	Flesh Colour R=0 W=1 M=2	DNA Vial#	Weight ~~mark~~ lbs kg	Lingcod Fin No.	Otolith #
124	20D	724	1	56629	3	1	405547	0	27	24		A13
467	19E	675	1								10	

11. **Shellfish Only** (units: 1 = Number, 2 = Weight in kg)

Target Species	Gear Code	Trap QT	SubArea	Soak Time	Landed Species	Units	Kept	Rel
751	7	1	20D	3	751	1	2	5
					752	1	0	3
761	7	1	20D	3	733	1	0	1

Check Here if Using Back ☐

March 8, 2004

9. How Much Time in ½ Hrs was directed at the following?
Chinook 2 Coho ____ Salmon ____
Lingcod 1.5 Rockfish ____ Halibut ____
Groundfish ____ Shellfish 0.5 Other ____

10. **Seal Encounters** (Y=1 N=0)
a) Did you change position to avoid seals? 1
b) How many of the following were lost?
CN ____ CO ____ PK ____ SO ____ CM ____
AT ____ SM ____ RF ____
c) Did you see your fish in the seal's mouth? 0
d) Did you land a partial fish? 0

Figure 2. SG creel survey interview form, 2007.

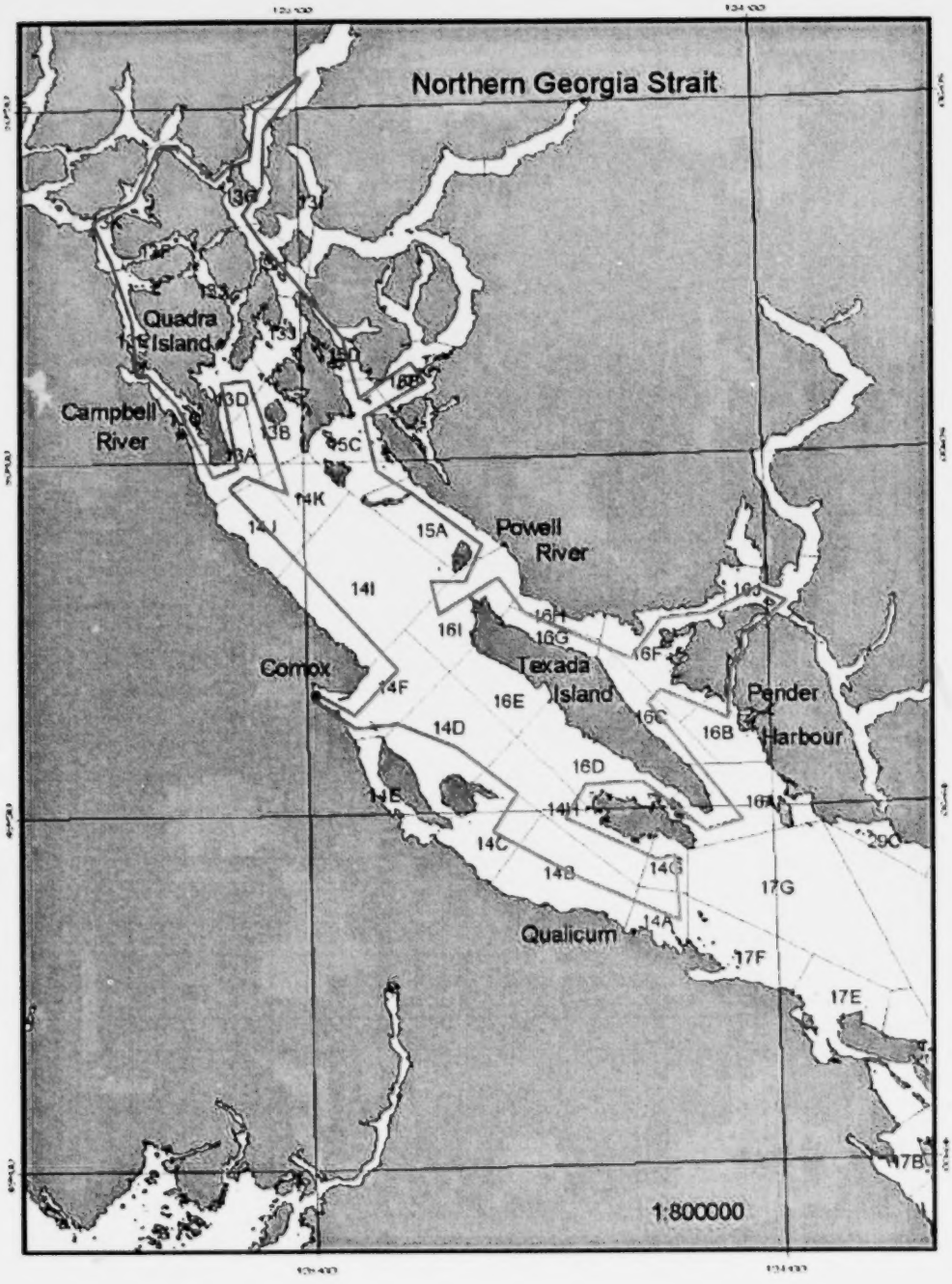


Figure 3a. SG creel survey northern overflight route, 2007.

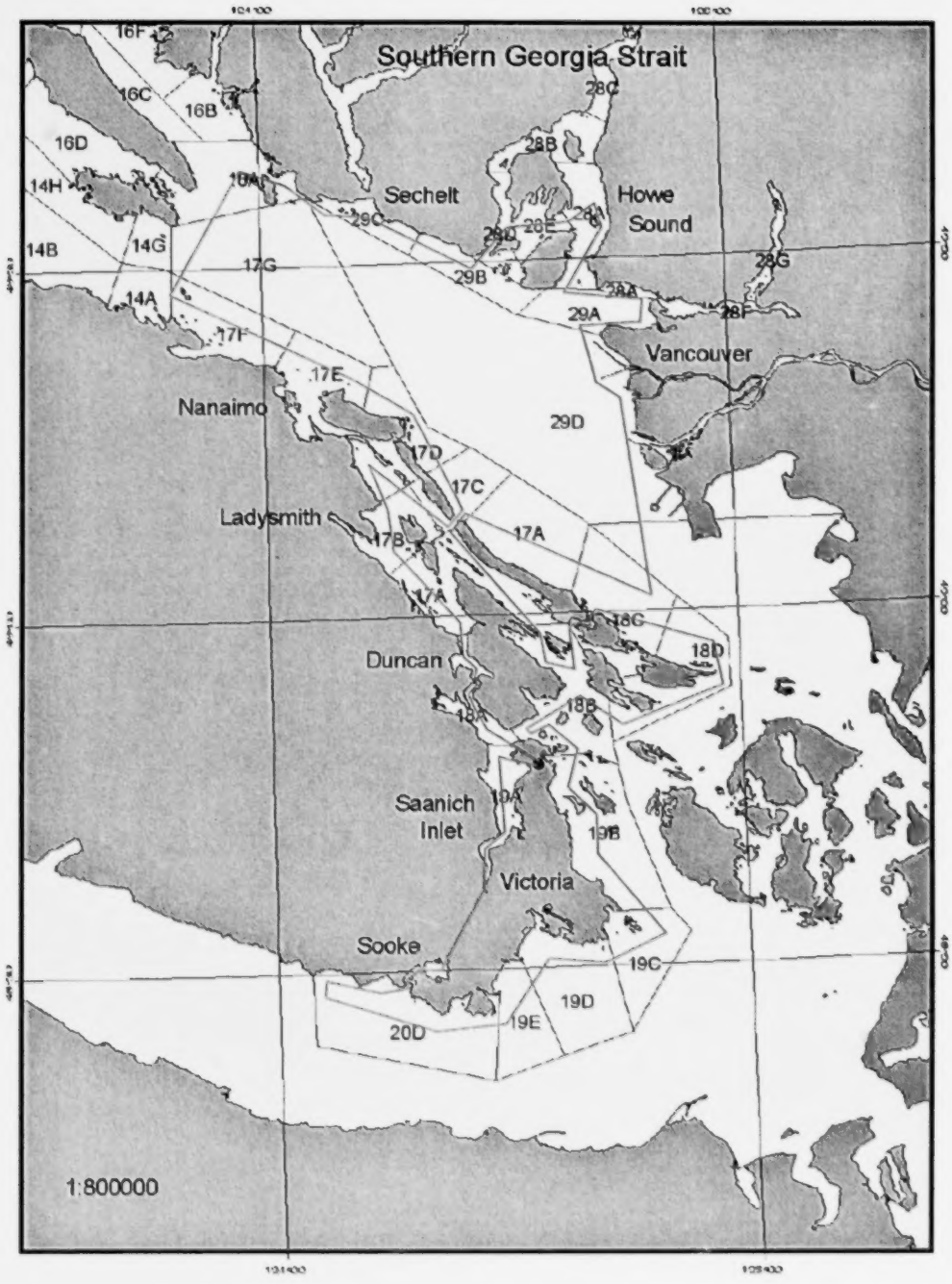


Figure 3b. SG creel survey southern over flight route, 2007.

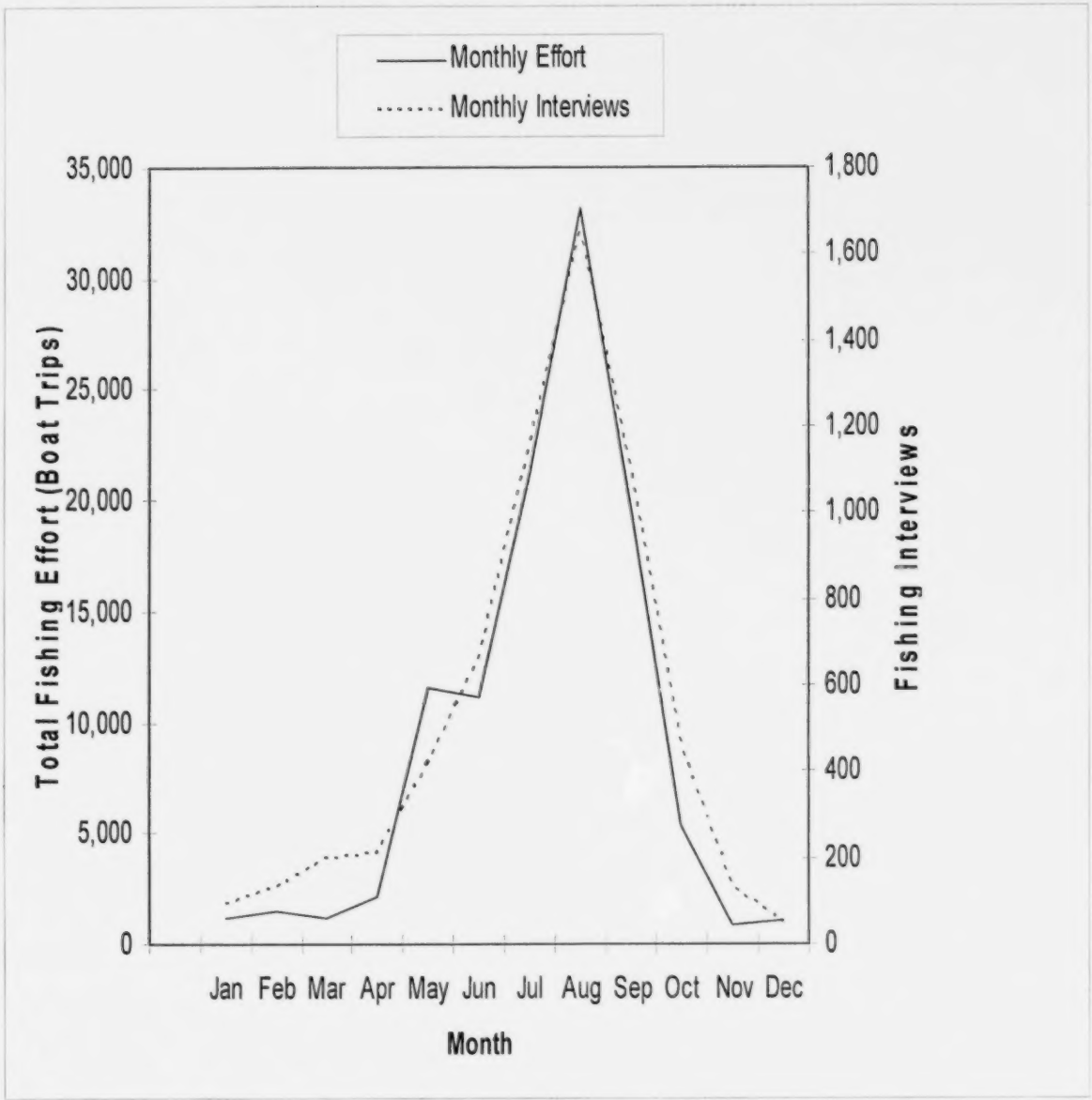


Figure 4. Comparison of monthly[1] total fishing effort and monthly[1] fishing interviews, SG creel survey, 2007.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

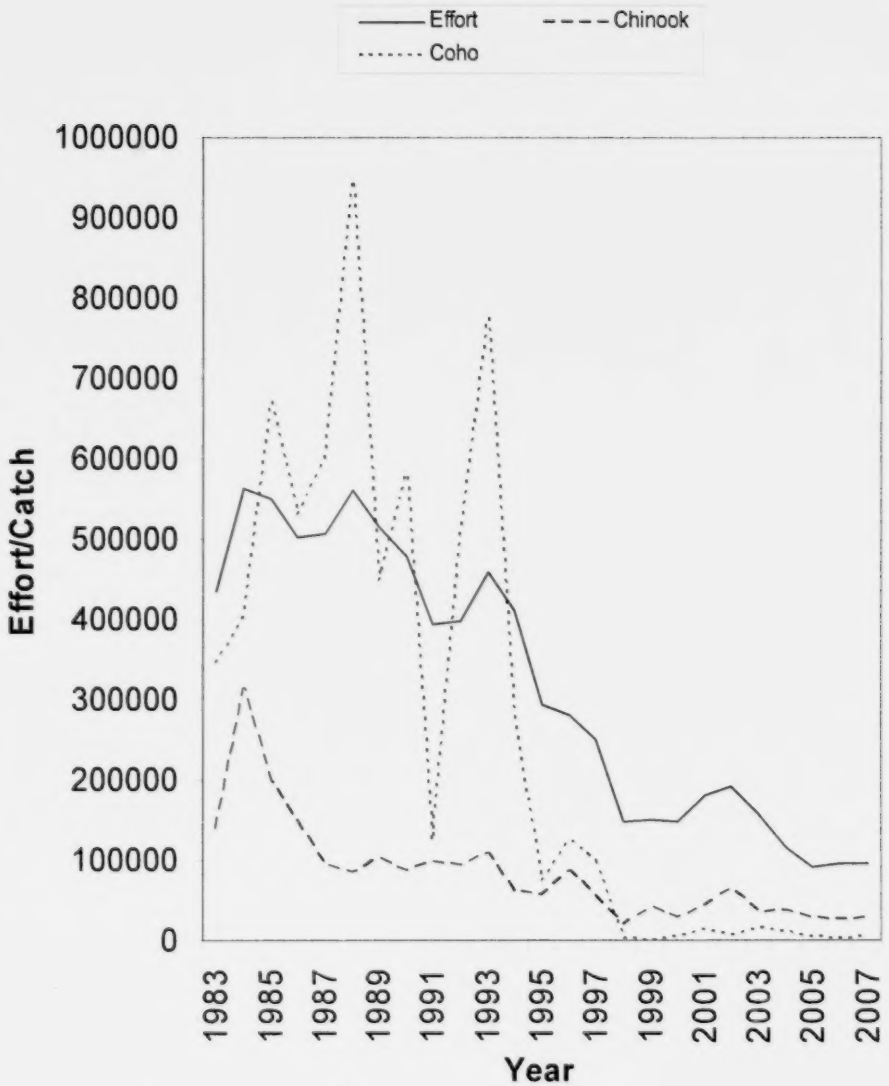


Figure 5. Effort (boat trips) statistics and sport catches of Chinook and Coho salmon for the SG, 1983 to 2007.

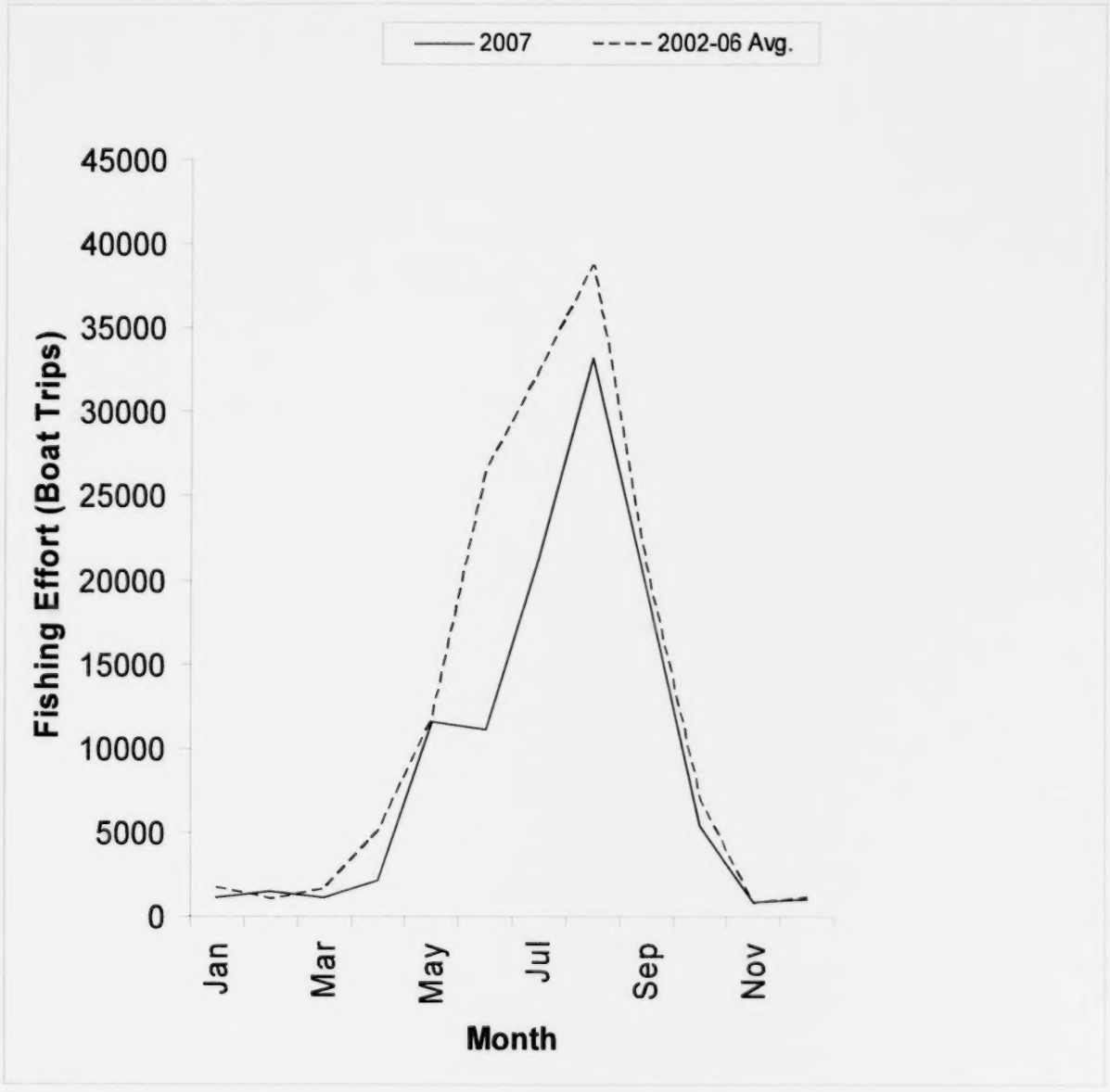


Figure 6. Monthly[1] fishing effort estimates (boat trips) in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

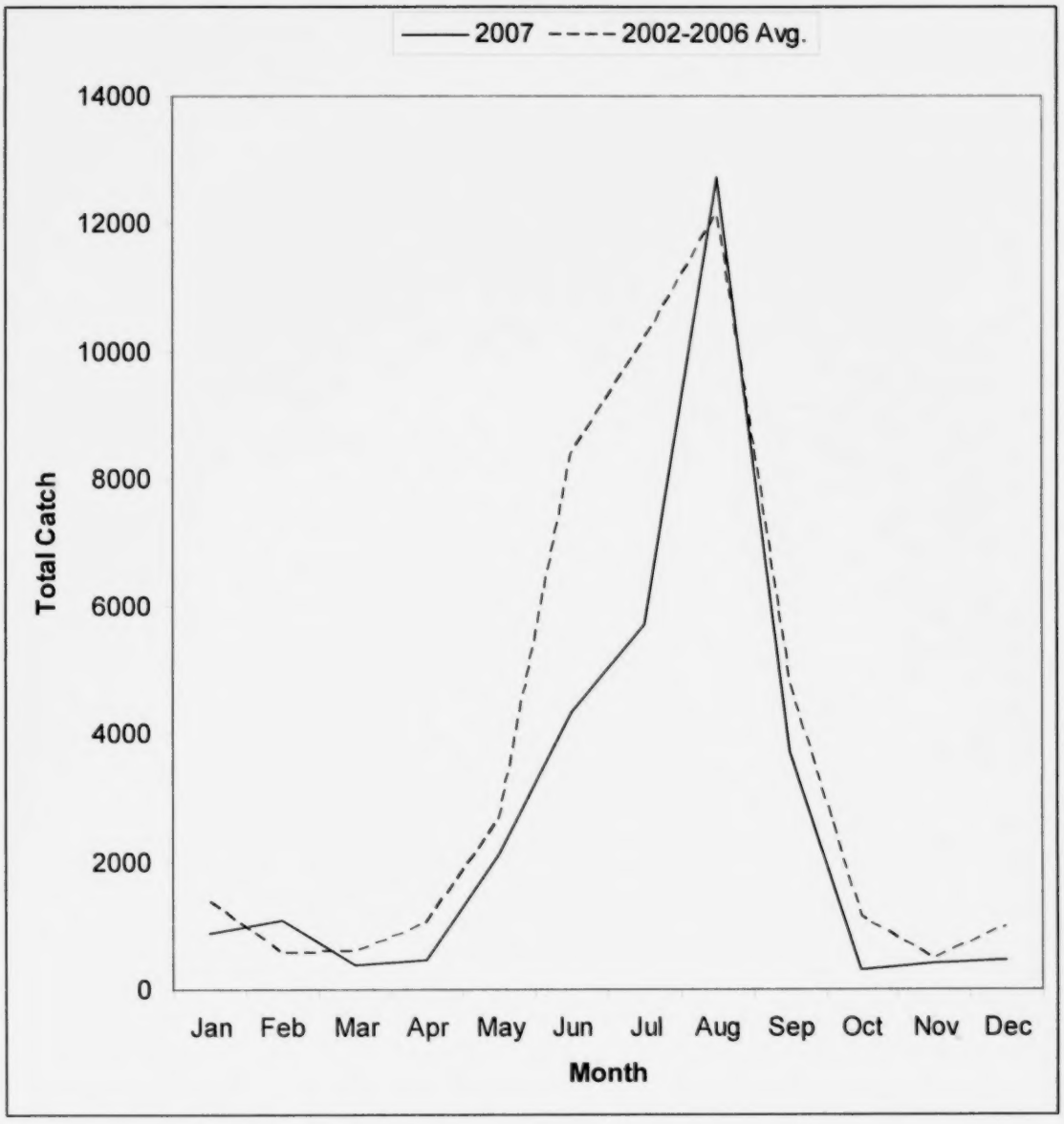


Figure 7. Monthly[1] Chinook catches in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

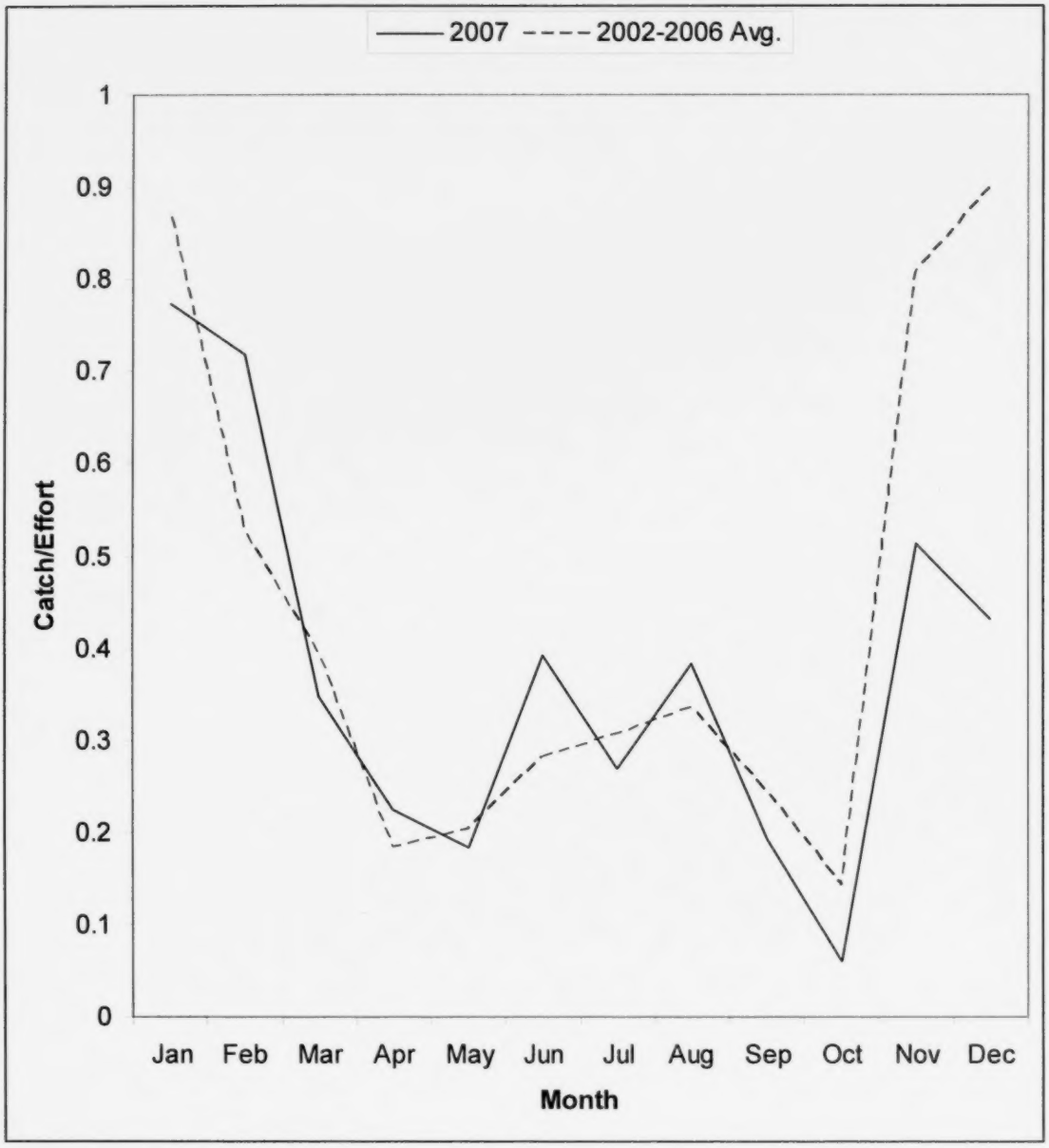
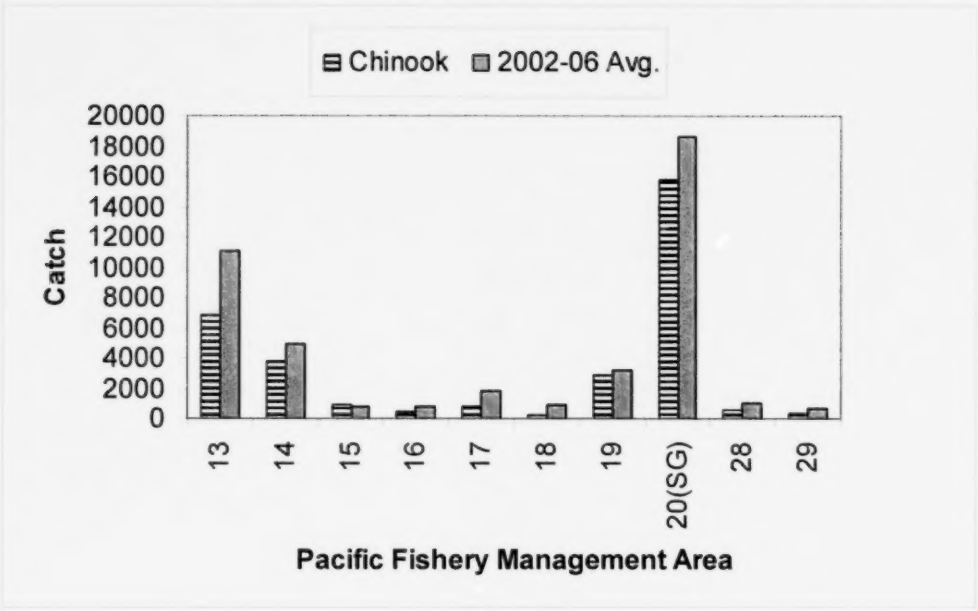


Figure 8. Monthly[1] Chinook catches per boat trip in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.



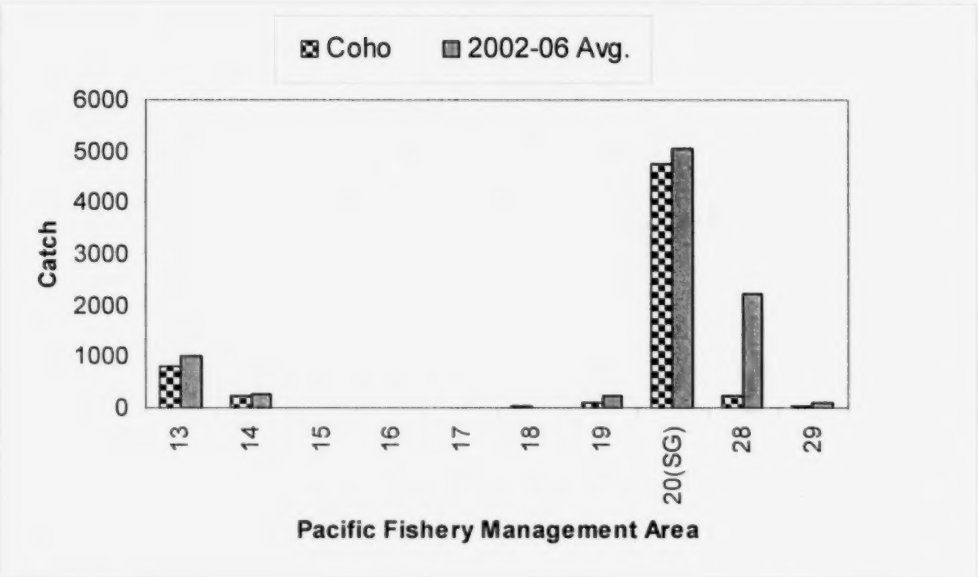


Figure 9. Annual sport catches of Chinook and Coho salmon by PFMA[1] in the SG creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

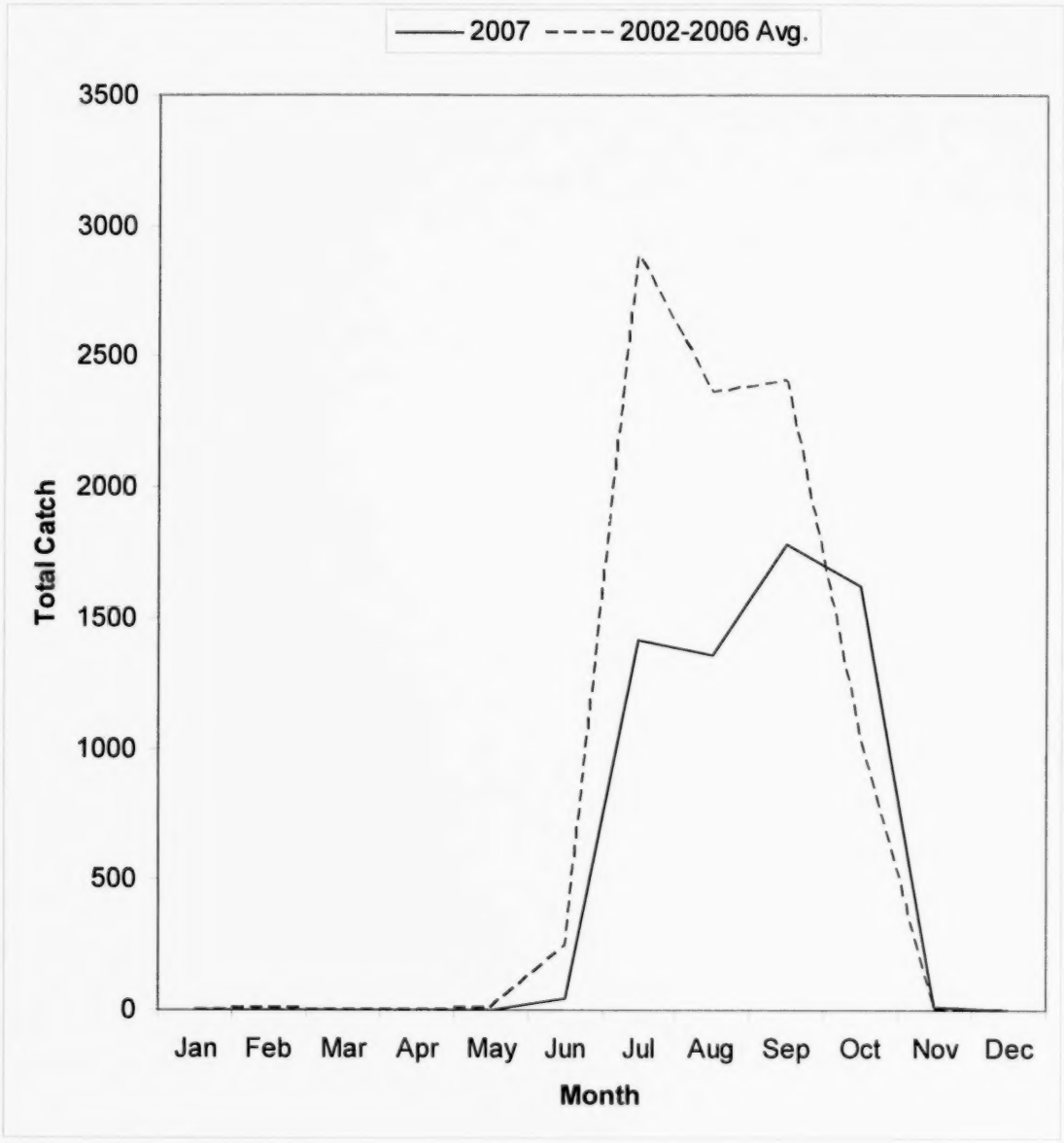


Figure 10. Monthly[1] Coho catches for the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

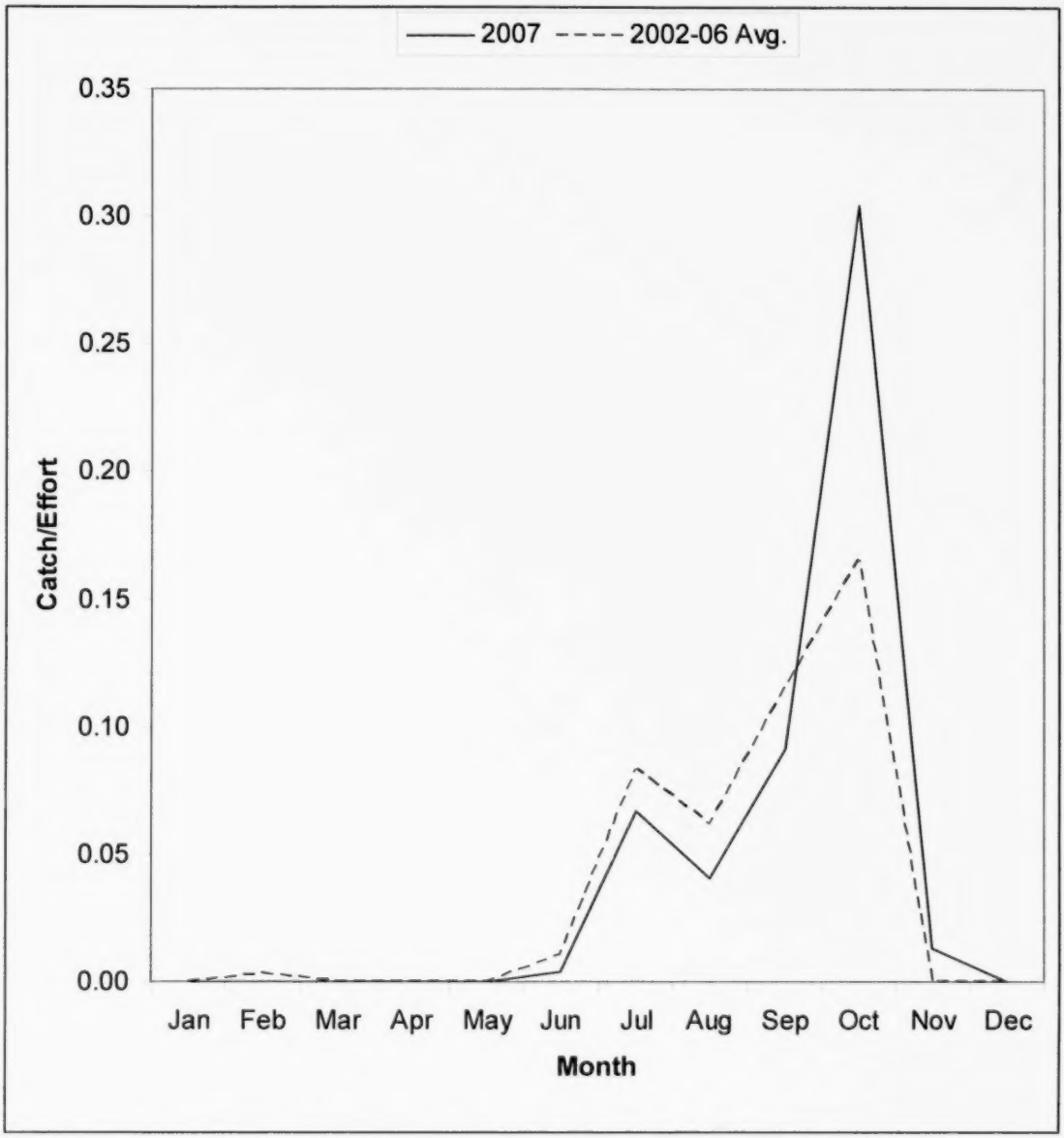


Figure 11. Monthly[1] Coho catches per boat trip in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

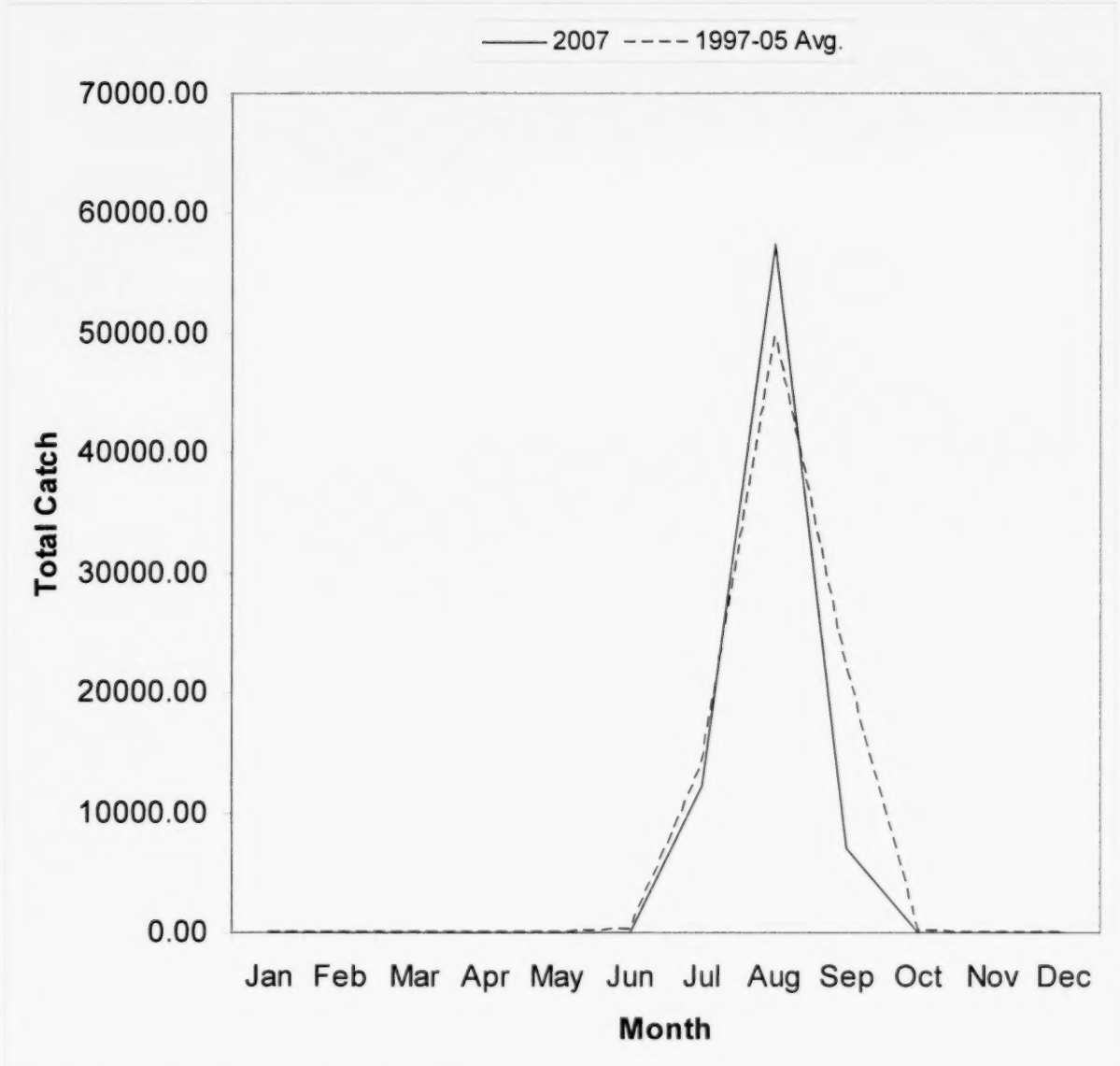


Figure 12. Monthly[1] odd year Pink catches in the SG sport fishery creel survey during 2007 and the five-cycle average for 1997 to 2005.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

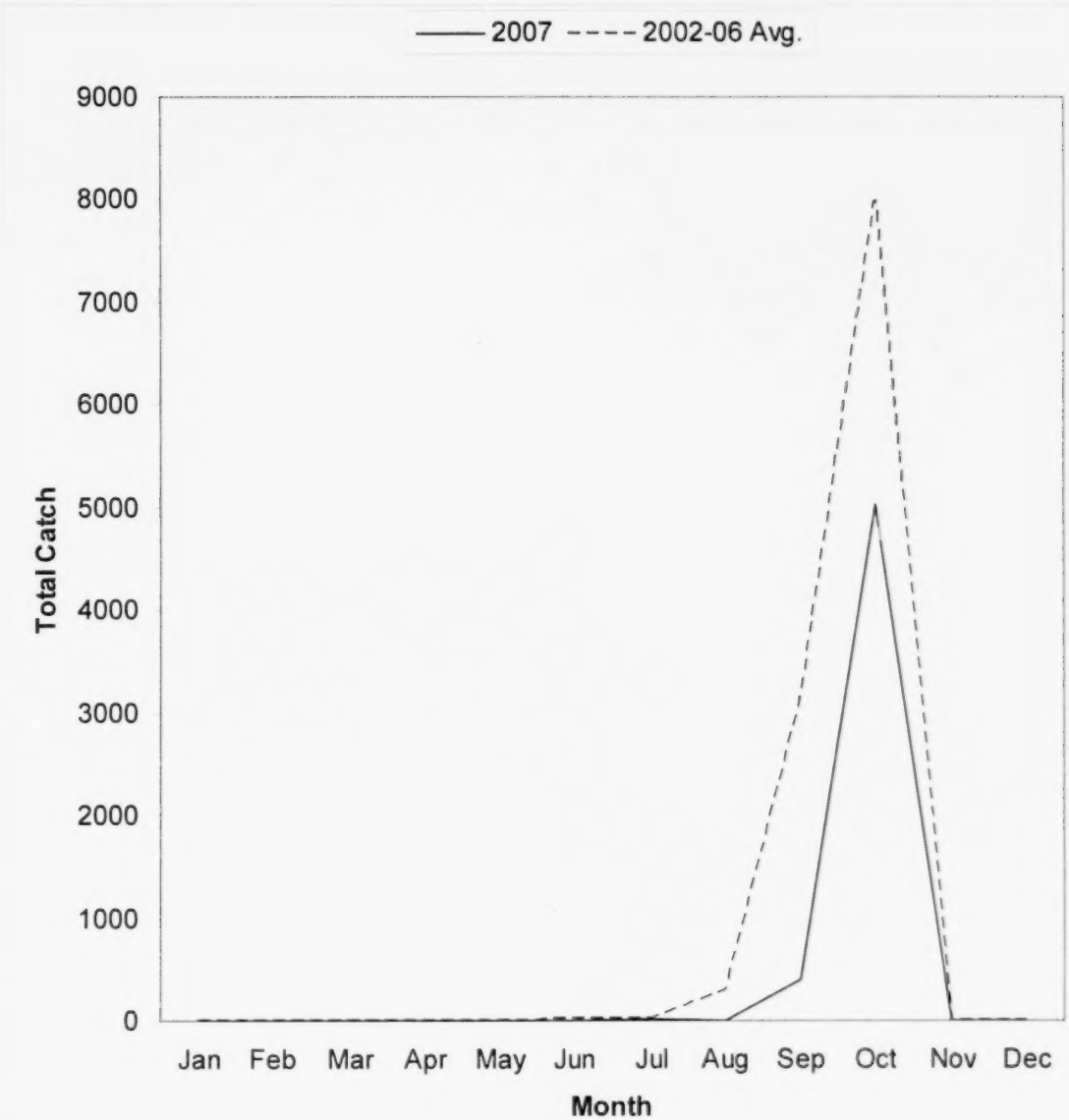
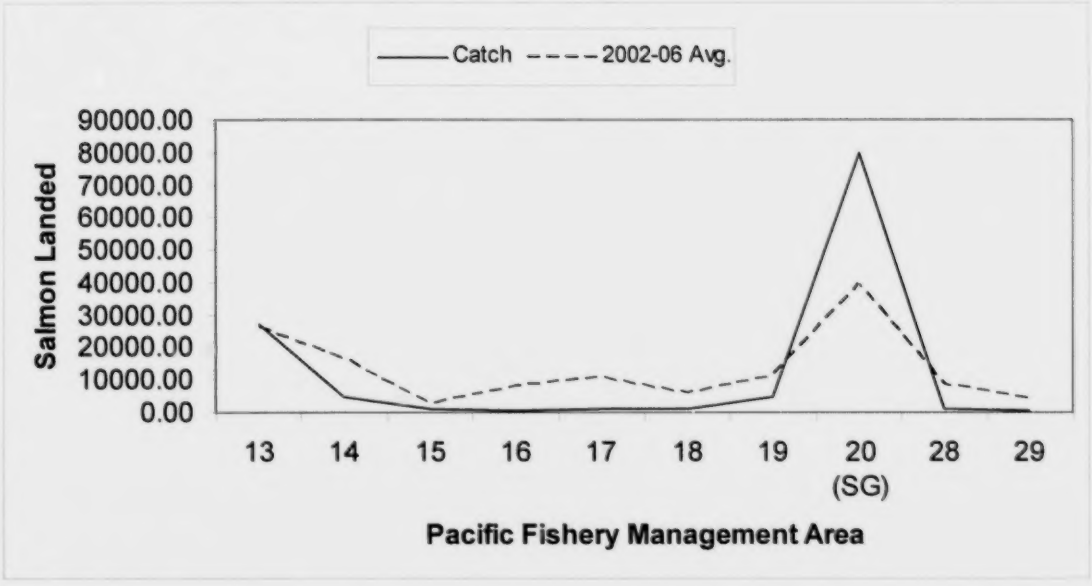


Figure 13. Monthly[1] Chum catches in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.



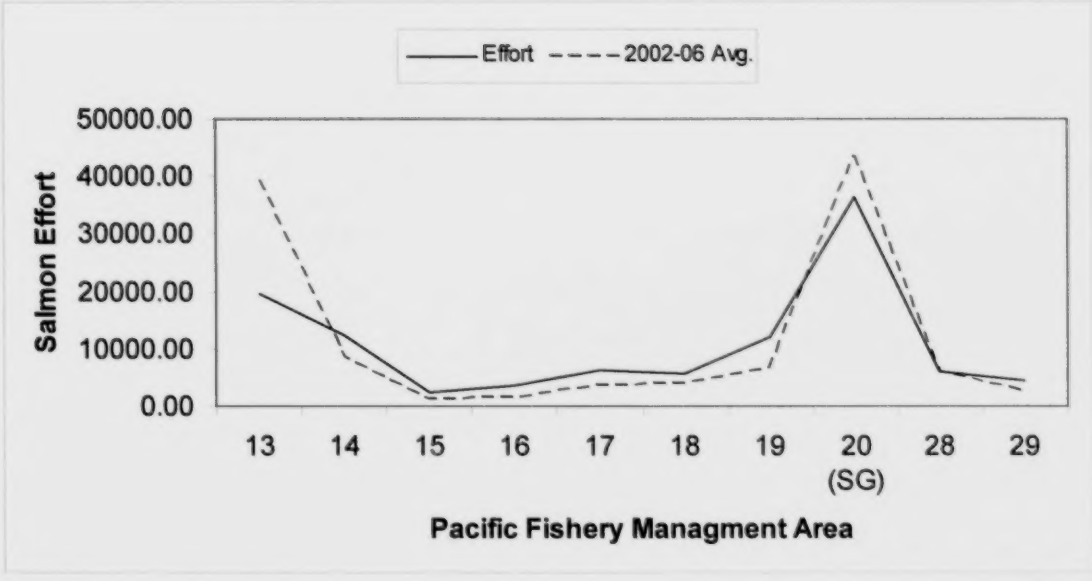


Figure 14. Total salmon landed and total fishing effort expended by PFMA[1] in the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

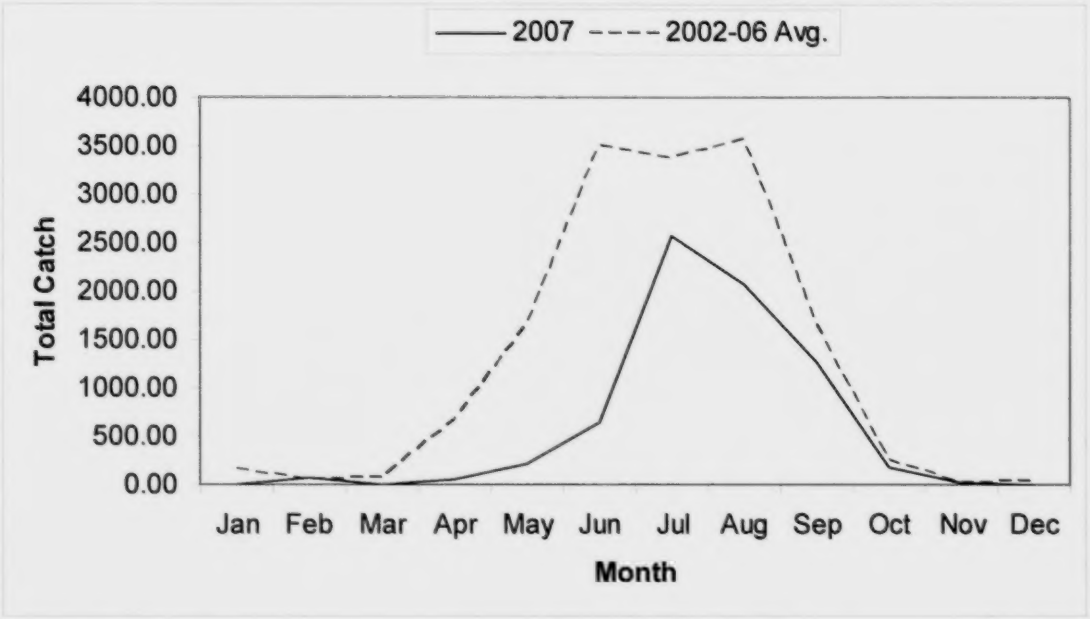


Figure 15. Monthly[1] rockfish (all species) catches for the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

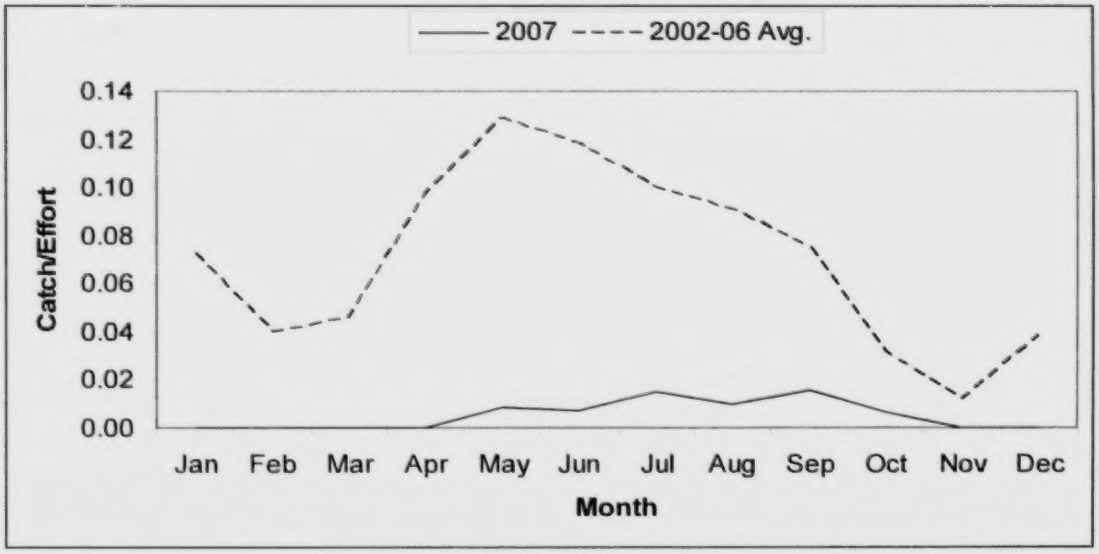


Figure 16. Monthly[1] rockfish (all species) catches per boat trip for the SG sport fishery creel survey during 2007 and the five-year average for 2002 to 2006.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

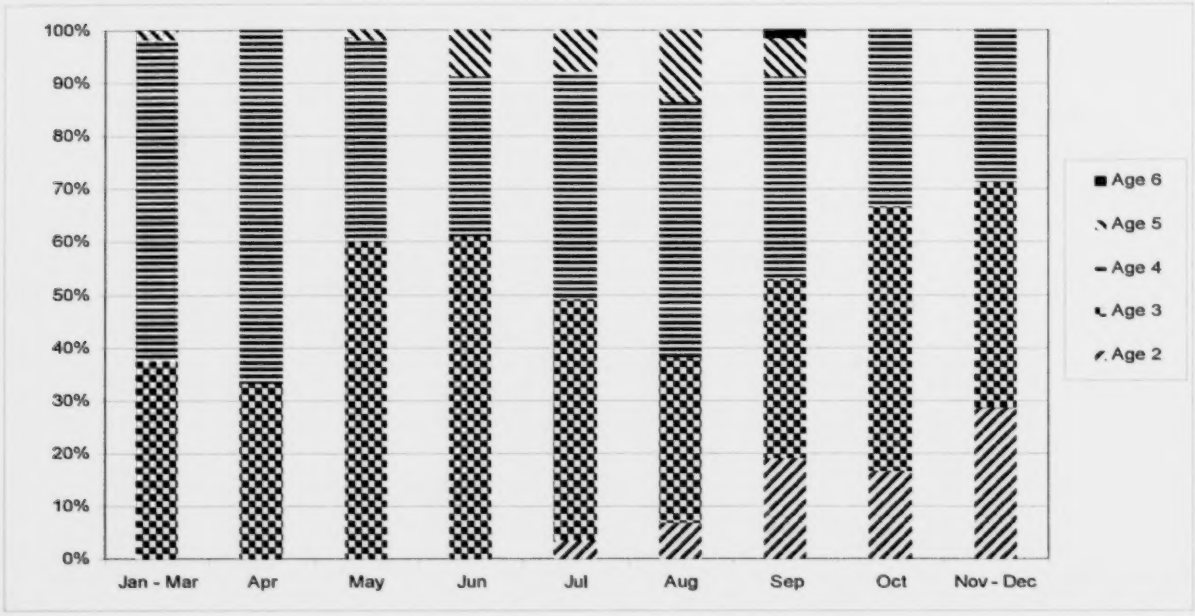


Figure 17. Monthly[1] percent age composition of Chinook salmon sampled in the SG creel survey, 2007.

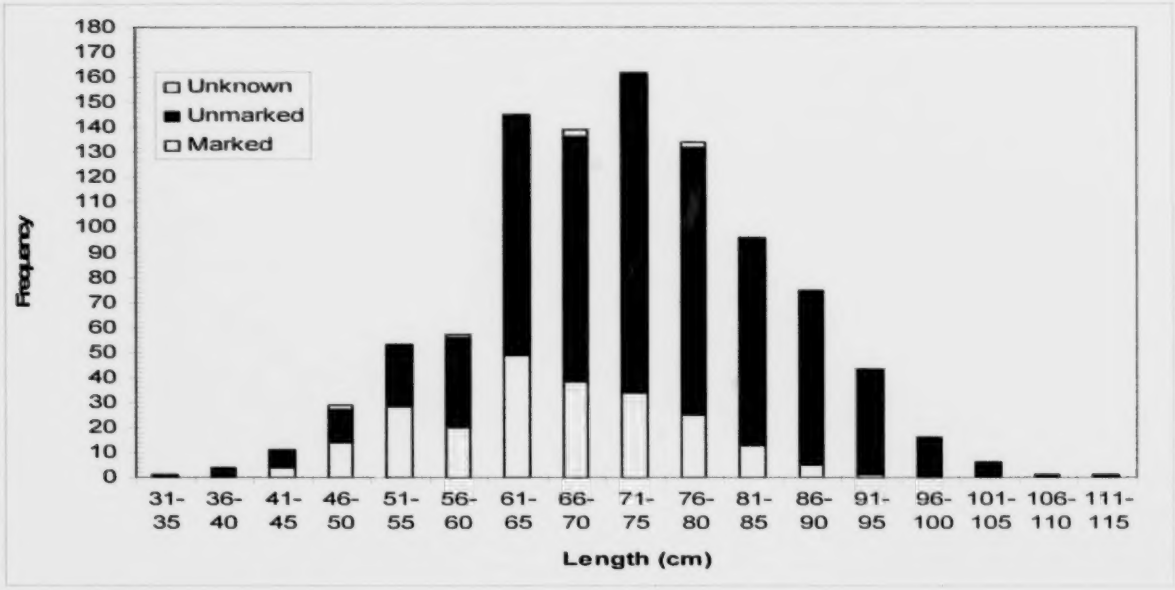


Figure 18. Length frequency distribution of Chinook salmon sampled in the SG creel survey, 2007.

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

APPENDICES

Appendix A. Previous SG and northern Vancouver Island creel survey reports.

Shardlow, T.F., English, K.K., Hoyt, T., Gillespie, G.E., and Calvin, T.A. 1989. Strait of Georgia Creel Survey sport fishery statistics, 1983. Can. Manuscr. Rep. Fish. Aquat. Sci. 1872: 53 p.

Shardlow, T.F., and Collicutt, L.D. 1989 a. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1984. Can. Manuscr. Rep. Fish. Aquat. Sci. 2032: 61 p.

Shardlow, T.F., and Collicutt, L.D. 1989 b. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1985. Can. Manuscr. Rep. Fish. Aquat. Sci. 2033: 60 p.

Shardlow, T.F., and Collicutt, L.D. 1989 c. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1986. Can. Manuscr. Rep. Fish. Aquat. Sci. 2034: 61 p.

Shardlow, T.F., and Collicutt, L.D. 1989 d. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1987. Can. Manuscr. Rep. Fish. Aquat. Sci. 2035: 62 p.

Shardlow, T.F., and Collicutt, L.D. 1989 e. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1988. Can. Manuscr. Rep. Fish. Aquat. Sci. 2036: 63 p.

Collicutt, L.D., and Shardlow, T.F. 1990. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1989. Can. Manuscr. Rep. Fish. Aquat. Sci. 2087: 75 p.

Collicutt, L.D., Naito, B.G., Ryall, P., and Lapi, L. 1992. Northern Vancouver Island sport fishery creel survey statistics for salmon and groundfish, 1991. Can. Tech. Rep. Fish. Aquat. Sci. 1857: 121 p.

Collicutt, L.D., and Shardlow, T.F. 1992. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1990. Can. Manuscr. Rep. Fish. Aquat. Sci. 2109: 76 p.

Collicutt, L.D., and Shardlow, T.F. 1995. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1991. Can. Manuscr. Rep. Fish. Aquat. Sci. 2137: 75 p.

Collicutt, L.D., and Shardlow, T.F. 1994. Strait of Georgia sport fishery creel survey statistics for salmon and groundfish, 1992. Can. Manuscr. Rep. Fish. Aquat. Sci. 2221: 75 p.

Collicutt, L.D., Shardlow, T.F., Smith, B.D., and Gillespie, G.E. 1994. Northern Vancouver Island sport fishery creel survey statistics for salmon and groundfish, 1992. Can. Tech. Rep. Fish. Aquat. Sci. 1973: 53 p.

Collicutt, L.D., Shardlow, T.F., Smith, B.D., and Gillespie, G.E. 1994. Northern Vancouver Island sport fishery creel survey statistics for salmon and groundfish, 1993. Can. Manuscr. Rep. Fish. Aquat. Sci. 1974: 53 p.

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Hardie, D.C., Nagtegaal, D.A., and Nagy, L. 2001. Strait of Georgia sport fishery and Northern Vancouver Island creel survey statistics for salmon and groundfish, 1999. Can. Manuscr. Rep. Fish. Aquat. Sci. 2553: 111 p.

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Appendix B. Strait of Georgia Creel (SG) Survey Study Area.

The 'Areas' delineated within the SG creel survey are the same as those statistical areas used previous to the current PFMA's. The description of the area boundaries are those stated as salmon purse-seine fishing areas. Catch and effort estimates were produced for PFMA's 13 through 19, 20(SG), 28, and 29 and these areas are further divided for the purpose of the creel survey in creel sub-areas (Fig. 3 a and b). Sub-areas being delineated by observed sport fishing patterns and concentrations.

The SG creel survey study area and landing site locations used in 2007 are shown in Figure 1. The study area for which these statistics apply includes those waters of JDF Strait and the SG bounded in the south by a line from Sheringham Pt. on Vancouver Island due south to an intersection with the International Boundary and along the International Boundary to the B.C, Mainland coast at Blaine (Boundary Bay) and in the northern by the following boundary lines:

1. A line in Johnstone Strait from Rock Point just west of Rock Bay to a point approximately 1 km west of the western-most point of Turn Island.
2. Includes the waters of Nodales Channel south of East Thurlow Island bound by a line from Johns Point on East Thurlow Island to Owen Point on the mainland coast.
3. Bute Inlet below a line from Lawrence Point across the inlet. This coincides with the intersection of PFMA's 13-21 and 13-22.
4. A line from Raza Point on Raza Island northwest to the mainland coast off Calm Channel.
5. A line from the southern-most point of Raza Island to the western-most point of West Redonda Island.
6. A line from the eastern-most point of West Redonda Island from Marylebone Point to Horace Head on East Redonda Island.
7. Desolation Sound bound by a line from the southern-most point of East Redonda Island to Price Point on the mainland coast.
8. A line from Zephine Head on Gifford Peninsula south of Desolation Sound to Sarah Point on the Malaspina Peninsula.
9. A line from Elephant Point on the mainland coast northeast of Saint Vincent Bay to intersect with the peak of Mount Foley approximately 1.5 km south southwest of Lapan Creek.
10. A line starting at a point approximately 2.5 km north of Dacres Point on the mainland coast to a point approximately 1 km north of Treat Creek.
11. A line that coincides with the intersection of PFMA's 16-9 and 16-11 from Egmont Point on the mainland coast to the Sechelt Peninsula.
12. A line that coincides with the intersection of the boundaries of PFMA's 28-1 and 28-3 in Howe Sound.
13. A line from the southern-most point of Halkett Point on Gambier Island due east till it intersects with the mainland coast at Lions Bay.
14. A line directly under the Lions Gate Bridge from Prospect Point northeast to the West Vancouver shoreline.

Appendix C. Methods and Equations Used in Analysis of catch and Effort Statistics for the SG Creel Survey.

Description of terms, variables and subscripts used in this report.

DESCRIPTION OF TERMS

Shift/Stint - Represents a combination of a day type and landing site which was sampled on a single day. i.e. one sampling stint performed by an interviewer.

Work block - Represents one of three possible periods at a particular site of a given day type. Start and end times associated with these shifts change during the season due to available light.

Work Block 0 is a midday shift
Work Block 1 is a morning shift
Work Block 2 is an afternoon shift

Day type - There are two possible day types: weekdays and weekends; holidays are considered to be weekend days.

Time block - Each day is divided into 16 time blocks which are:

1) before 7 am
2) 7:00 - 7:59 am
3) 8:00 - 8:59 am
.
.
15) 8:00 - 8:59 pm
16) after 9 pm

DESCRIPTION OF VARIABLES

A	-	Number of boats actively fishing
B	-	Number of boats observed on a flight
C	-	Catch
C'	-	Catch of marked salmon
CPE	-	Catch per boat trip
E	-	Effort (estimated total number of boat trips)
I	-	Number of boats interviewed and found to have been fishing
L	-	Number of boats landing
n	-	Number sampled
N	-	Population size from which n samples were observed
P	-	Proportion

T	-	Number of boat trips
V	-	Number found to be marked
W1	-	Weighting factor to expand for all possible stints at each site
W2	-	Weighting factor to expand for all boats that landed in each work

DESCRIPTION OF SUBSCRIPTS

a	-	age
g	-	a set of landing sites
d	-	day type
i	-	site
j	-	work block
k	-	stint
l	-	landing time block
m	-	month
q	-	the next boat landing at site i and upon interviewing, found to have been fishing (q ranges from 1 to n)
r	-	species
s	-	sub-PFMA
t	-	time block
u	-	flight
x	-	region
y	-	annual

Calculation of Catch and Effort Statistics

To estimate the monthly catch and effort, three components had to be calculated from a month's data:

(1) the weighted mean daily fishing pattern from interview data,
(2) the weighted mean catch per unit effort from interview data and
(3) the mean sport count from overflight data.

The equations used to estimate the means and variances for all catch and effort statistics are shown below.

Weighting factors used to estimate the daily fishing activity were calculated using the equations derived from DPA Consulting Ltd. (1982).

The data obtained from each shift were multiplied by the following weighting factor (W1) to expand for all possible stints at each site. The formula reads:

(1)

$$W1_{dij} = \frac{N_d}{n_{dij}}$$

where N_d is the total number of days of type d in that month and n_{dij} is the number of times the jth work block at the ith site was sampled on type d days.

The interviews aggregated by work block were multiplied by the weighting factor W2 to expand for all boats that landed in each work block. The formula reads:

$$W2_{dijk} = \frac{L_{dijk}}{I_{dijk}} \quad (2)$$

where L_{dijk} is the number of boats landed and I_{dijk} is the number of boats interviewed on the kth stint in the jth work block at the ith site on a day type d.

Therefore, the following equations can be used to calculate an unbiased estimate of the total monthly catch ($\hat{C}_{dgr}$), fishing trips ($\hat{T}_{dg}$) and fishing activity in time block $\hat{A}_{dgt}$ for each day type (d) where g is a set of landing sites (i). These formulas read:

$$\hat{C}_{dgr} = \sum_i \sum_j \left[W1_{dij} \sum_k \sum_q (W2_{dijk} C_{dijklqr}) \right] \quad (3)$$

$$\hat{T}_{dg} = \sum_i \sum_j \left[W1_{dij} \sum_k \sum_q (W2_{dijk}) \right] \quad (4)$$

$$\hat{A}_{dgt} = \sum_i \sum_j \left[W1_{dij} \sum_k \sum_q (W2_{dijk} A_{dijkqt}) \right] \quad (5)$$

where C_{dijkqr} is the catch of species r by the qth fishing party, and A_{dijkqt} can equal 0 or 1, thereby indicating whether the qth fishing party was actively fishing in time block t. Thus, the mean monthly catch per unit effort (CPE_{dgr}) measured in terms of numbers of fish kept per completed boat trip, and proportion of daily fishing effort active during the hour of the aerial survey (P_{dgt}) can be calculated with the following equations:

$$CPE_{dgr} = \frac{\hat{C}_{dgr}}{\hat{T}_{dg}} \tag{6}$$

$$P_{dgt} = \frac{\hat{A}_{dgt}}{\hat{T}_{dg}} \tag{7}$$

where CPE_{dgr} and P_{dgt} are calculated for each day type (d) and group of landing sites (g).

The groups of landing sites reflect geographic areas with similar catch rates and/or activity patterns.

The estimated mean number of boats fishing during the hour of the sport boat count by overflight was calculated for each sub-PFMA using the following equation:

$$\overline{B}_{dst} = \frac{\sum_{u} B_{sdtu}}{n_{ds}} \tag{8}$$

where B_{sdtu} is the number of boats observed fishing on flight u at time t, in sub-PFMA s for day type d.

The mean sport boat count at the time of the overflight ($\overline{B}_{dst}$) and proportion of daily fishing effort active during the hour of the overflight (P_{dgt}) were used in the following equation to calculate the total fishing effort for sub-PFMA s on day type d:

$$E_{ds} = \overline{B}_{dst} \frac{1}{P_{dgt}} N_d \tag{9}$$

where N_d is the number of type d days in the month. Interview data for the sub-PFMA fished (s) by anglers landing at each of the sites (i) within a landing group (g) were used to select the proportions (P_{dgt}) that are appropriate for each mean boat count ($\overline{B}_{dst}$).

The estimate for total effort by sub-PFMA and day type (E_{ds}) and the weighted catch per boat trip for a group of landing sites by day type, area and species (CPE_{dgr}) were used to calculate total catch for each species (r) and each sub-PFMA (s):

$$C_{sr} = \sum_{d} (E_{ds} CPE_{dgr}) \tag{10}$$

The interview data were also used to select the catch per effort estimates (CPE_{dgr}) that should be applied to the effort estimates (E_{ds}) for a specific sub-PFMA (s).

Variance of Total Fishing Effort

The variance estimate for the number of boat trips in each sub-PFMA was:

$$Var(b_{dsu}) = \frac{(N_d - n_{ds})}{(N_d - 1)} \times \frac{\sum_{u=1}^{n} b_{dsu}^2 - \frac{\left(\sum_{u=1}^{n} b_{dsu}\right)^2}{n_{ds}}}{(n_{ds} - 1)} \quad (11)$$

where b_{dsu} is the estimated number of boat trips on aerial survey u, in sub-PFMA s, on day type d and n is the number of days when boat counts were conducted in sub-PFMA s on type d days; and N_d is the total number of type d days in the month.

The variance estimate for the total number of boat trips in a given month for each day type and sub- PFMA was:

$$Var(E_{b_{ds}}) = N_d^2 \times Var(b_{ds}) \quad (12)$$

Variance of Total Catch

The variance estimate for mean catch per effort was:

$$Var(CPE_{dsi}) = \frac{\sum_{i=1}^{ni} cpe_{dsi}^2 - \frac{\left(\sum_{i=1}^{ni} \times cpe_{dsi}\right)^2}{ni_{ds}}}{(ni_{ds} - 1)} \quad (13)$$

where cpe_{dsi} is the catch per effort reported in interview i, for the sub-PFMA or group of sub-PFMA's s, on the day type d; and ni_{ds} is the number of interviews for that stratum.

The variance for the total catch in each stratum was estimated by combining the variance for fishing effort and variance for catch per effort using the significant terms of a Taylor series expansion (Cochran 1963):

(14)

$$Var(C_s) = \sum_{d=1}^{2} \left(E_{ds}^2 \times Var(CPE)_{ds} + CPE_{ds}^2 \times Var(E)_{ds} + Var(E_{ds}) \times Var(CPE)_{ds} \right)$$

Estimation of Marked Chinook and Coho Salmon

The incidence of marked (adipose-clipped) Chinook and Coho was recorded in each interview. The proportion of marks observed for each region, month and species (P_{xmr}) was calculated as:

$$P_{xmr} = \frac{V_{xmr}}{n_{xmr}} \tag{15}$$

where V is the number of marked fish observed and n is the number of fish inspected by region (x), month (m) and species (r).

The variance of each proportion was calculated as:

$$S^2_{P_{xmr}} = \frac{P_{xmr}(1 - P_{xmr})}{n_{xmr}} \tag{16}$$

Monthly catch estimates of marked salmon were calculated as:

$$C'_{xmr} = P_{xmr} C_{xmr} \tag{17}$$

where C_{xmr} is the estimated catch of species r in region x and month m.

The variance of the marked catch estimates was calculated as:

$$S^2_{C'xmr} = P^2_{xmr} S^2_{C_{xmr}} + C^2_{xmr} S^2_{P_{xmr}} + S^2_{C_{xmr}} S^2_{P_{xmr}} \tag{18}$$

where $S^2_{C_{xmr}}$ is the variance of the catch estimates of species r in region x and month m.

The estimate annual proportions of marked salmon caught in each region (weighted by the corresponding regional annual catch estimates) were calculated as:

$$P_{xry} = \frac{C'_{xry}}{C_{xry}} \tag{19}$$

where

$$C'_{xry} = \sum_m C'_{xmr} \quad and \quad C_{xry} = \sum_m C_{xmr} \tag{20}$$

The variance of the annual proportions was calculated as:

$$S^2{}_{P_{xry}} = \left(\frac{C'_{xry}}{C_{xry}}\right)^2 \left[\frac{S^2{}_{C'_{xry}}}{(C'_{xry})^2} + \frac{S^2{}_{C_{xry}}}{(C_{xry})^2}\right] \tag{21}$$

where $S^2{}_{C_{xry}}$ is the variance of the annual estimated catch of species r in region x.

Estimation of Age Composition of Chinook Catch

Scale samples and length measurements were taken in a sub-sampling program during the interview process. Ages used in this report represent saltwater age of the fish.

The proportion of Chinook at each age and month (P_{am}) was calculated as:

$$P_{am} = \frac{a_m}{n_m} \tag{22}$$

where a_m represents the number of fish observed at age a during month m, and n_m is the total number of fish bio-sampled in that month.

The variance of each proportion was calculated as:

$$S^2{}_{am} = \frac{P_{am}(1 - P_{am})}{n_m} \tag{23}$$

The catch at age of Chinook in each month was calculated as:

(24)

$$C_{am} = P_{am} C_m$$

where C_m is the estimated catch of Chinook salmon in a given month m.

The variance of the catch at age estimate was calculated as:

$$S^2_{C_{am}} = P^2_{am} S^2_{C_m} + C^2_m S^2_{P_{am}} + S^2_{C_m} S^2_{P_{am}} \quad (25)$$

where $S^2_{C_m}$ is the variance of the month catch estimate C_m.

The annual catch at age was calculated as:

$$C_{ay} = \sum_m C_{am} \quad (26)$$

with a variance:

$$S^2_{C_{ay}} = \sum_m S^2_{C_{am}} \quad (27)$$

The annual proportion at age (weighted by monthly catch) was calculated as:

$$P_{ay} = \frac{C_{ay}}{C_y} \quad (28)$$

with a variance:

$$S^2_{P_{ay}} = \left(\frac{C_{ay}}{C_y} \right)^2 \left[\frac{S^2_{C_{ay}}}{(C_{ay})^2} + \frac{S^2_{C_y}}{(C_y)^2} \right] \quad (29)$$

Appendix D-1. SG effort by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	640	103	487	131	-	-	-	-	1128	167
Feb	-	-	-	-	-	-	-	-	-	-	-	-	708	115	787	109	-	-	-	-	1496	159
Mar	-	-	-	-	-	-	-	-	-	-	-	-	724	133	419	150	-	-	-	-	1143	200
Apr	313	65	20	0	-	-	-	-	-	-	-	-	1018	152	767	136	-	-	-	-	2118	214
May	795	237	4935	2378	400	86	480	69	997	104	933	207	1167	206	1080	292	438	74	336	41	11561	2431
Jun	1810	265	771	157	360	93	398	71	881	72	974	112	979	124	3936	791	508	72	518	89	11134	883
Jul	5529	410	1455	334	616	100	673	80	2311	240	1302	170	1451	159	6137	936	1282	140	464	79	21221	1144
Aug	6608	733	3074	385	819	105	1416	195	799	68	1514	314	2086	175	13498	628	2194	175	1138	206	33144	1156
Sep	3434	321	2036	320	180	41	546	87	1164	166	1008	277	1649	365	6667	1520	1133	115	1637	313	19455	1696
Oct	1237	295	72	32	45	22	185	50	308	85	98	33	623	234	1822	88	505	238	427	164	5321	495
Nov	-	-	-	-	-	-	-	-	-	-	-	-	373	127	432	167	-	-	-	-	805	209
Dec	-	-	-	-	-	-	-	-	-	-	-	-	673	144	383	112	-	-	-	-	1057	182
Total	19725	1013	12364	2458	2420	198	3698	254	6460	336	5829	510	12092	635	36414	2100	6060	362	4521	428	109582	3560

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-2. SG Chinook kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	262	85	609	229	-	-	-	-	872	244
Feb	-	-	-	-	-	-	-	-	-	-	-	-	431	130	644	188	-	-	-	-	1075	228
Mar	-	-	-	-	-	-	-	-	-	-	-	-	114	40	284	119	-	-	-	-	398	126
Apr	27	18	-	-	-	-	-	-	-	-	-	-	235	92	215	77	-	-	-	-	477	121
May	161	87	972	1141	175	59	167	46	168	66	72	41	72	53	311	136	30	20	0	0	2126	1159
Jun	1159	214	244	115	373	138	114	43	134	40	81	36	99	39	2099	511	36	18	18	9	4357	588
Jul	1774	431	509	279	82	45	14	9	217	95	0	0	225	48	2890	506	2	2	9	12	5722	730
Aug	3240	891	1502	307	230	100	131	72	145	35	71	24	661	120	6359	667	284	98	103	70	12726	1174
Sep	548	94	588	237	9	7	5	5	167	53	57	40	229	77	1754	430	161	58	215	95	3733	522
Oct	4	4	0	0	0	0	0	0	0	0	0	0	92	42	166	89	48	43	12	9	322	108
Nov	-	-	-	-	-	-	-	-	-	-	-	-	159	61	255	111	-	-	-	-	414	127
Dec	-	-	-	-	-	-	-	-	-	-	-	-	314	205	142	55	-	-	-	-	456	212
Total	6912	1021	3815	1242	869	186	431	96	832	138	280	72	2895	329	15727	1138	561	125	356	119	32678	2022

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-3. SG legal Chinook released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	226	105	110	72	-	-	-	-	335	127
Feb	-	-	-	-	-	-	-	-	-	-	-	-	21	20	101	63	-	-	-	-	122	67
Mar	-	-	-	-	-	-	-	-	-	-	-	-	5	5	34	23	-	-	-	-	39	24
Apr	0	0	-	-	-	-	-	-	-	-	-	-	37	28	0	0	-	-	-	-	37	28
May	65	54	0	0	0	0	0	0	11	7	485	217	0	0	0	0	0	0	0	0	561	223
Jun	83	53	40	43	0	0	0	0	58	28	30	23	10	8	391	168	0	0	0	0	613	185
Jul	0	0	0	0	4	4	6	7	14	11	0	0	28	15	453	171	0	0	0	0	505	172
Aug	597	429	209	143	5	5	0	0	86	43	43	37	61	52	551	261	0	0	0	0	1552	528
Sep	0	0	6	4	0	0	0	0	35	24	18	16	20	15	147	90	0	0	0	0	226	96
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	14	14
Nov	-	-	-	-	-	-	-	-	-	-	-	-	33	17	63	60	-	-	-	-	96	62
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	8	11	-	-	-	-	8	11
Total	744	436	255	150	9	6	6	7	205	58	576	221	441	125	1870	383	0	0	0	0	4106	654

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-4. SG sub-Legal Chinook released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	111	62	72	57	-	-	-	-	182	84
Feb	-	-	-	-	-	-	-	-	-	-	-	-	12	6	69	49	-	-	-	-	80	50
Mar	-	-	-	-	-	-	-	-	-	-	-	-	10	7	42	25	-	-	-	-	52	27
Apr	60	34	-	-	-	-	-	-	-	-	-	-	5	3	10	11	-	-	-	-	75	36
May	410	263	13	7	246	76	194	64	85	40	117	76	10	11	39	38	256	106	0	0	1369	315
Jun	2420	440	505	208	771	321	623	148	121	43	112	53	34	28	438	146	271	94	196	85	5491	636
Jul	3879	694	1522	684	610	220	106	44	138	89	100	61	99	35	2255	508	399	139	237	71	9343	1137
Aug	2692	1186	2182	514	892	350	357	129	185	46	26	13	197	56	2023	340	554	127	304	153	9411	1404
Sep	536	102	1048	305	6	6	3	2	361	114	26	28	77	39	929	329	355	155	492	237	3832	554
Oct	4	4	0	0	64	47	0	0	0	0	14	14	27	31	291	196	35	46	153	108	588	236
Nov	-	-	-	-	-	-	-	-	-	-	-	-	89	71	145	117	-	-	-	-	234	137
Dec	-	-	-	-	-	-	-	-	-	-	-	-	68	66	8	11	-	-	-	-	76	67
Total	10000	1470	5269	932	2590	531	1283	211	889	163	394	116	738	145	6319	751	1869	286	1381	322	30734	2041

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-5. Clipped Adipose (CA) and unclipped adipose (UA) Coho[1] kept and released by month[3], effort, and mark type for the SG, 2007.

Month	Effort	SE	Coho CA Kept	SE	Coho UA Kept	SE	Coho Un-known Kept	SE	Monthly Coho Kept	Monthly Coho Kept SE	Coho CA Rel[2]	SE	Coho UA Rel[2]	SE	Coho Un-known Rel[2]	SE	Monthly Coho Rel[2]	Monthly Coho Rel[2] SE
Jan	1128	167	0	0	0	0	0	0	0	0	0	0	0	0	11	13	11	13
Feb	1496	159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	1143	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	2118	214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	11561	2431	0	0	0	0	0	0	0	0	0	0	0	0	18	22	18	22
Jun	11134	883	0	0	43	46	0	0	43	46	4	3	28	18	0	0	32	18
Jul	21221	1144	1253	290	134	61	27	20	1414	297	301	145	4058	784	645	227	5004	829
Aug	33144	1156	1283	258	73	39	0	0	1356	261	330	127	8161	2770	130	81	8621	2774
Sep	19455	1696	1388	245	386	151	6	7	1780	288	222	98	6283	788	122	85	6627	798
Oct	5321	495	351	196	1268	319	1	1	1620	374	14	14	541	195	104	52	659	202
Nov	805	209	0	0	11	8	0	0	11	8	0	0	0	0	0	0	0	0
Dec	1057	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	109582	3560	4275	499	1915	363	34	21	6224	617	871	217	19071	2991	1029	262	20971	3011

[1]39 unidentified salmon were kept and 5583 unidentified salmon were released in SG in 2007 and were not included.

[2]Rel = Released.

[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-6. Clipped adipose (CA) and unclipped adipose (UA) Coho[1] kept and released by PFMA[3], effort, and mark type for the SG, 2007.

PFMA	Effort	SE	Coho CA Kept	SE	Coho UA Kept	SE	Coho Un-known Kept	SE	PFMA Coho Kept	PFMA Coho Kept SE	Coho CA Rel[2]	SE	Coho UA Rel[2]	SE	Coho Un-known Rel[2]	SE	PFMA Coho Rel[2]	PFMA Coho Rel[2] SE
13	19725	1013	677	217	124	62	0	0	801	225	126	91	9050	2770	104	90	9280	2773
14	12364	2458	112	56	126	121	0	0	237	133	122	82	362	106	9	7	493	134
15	2420	198	0	0	0	0	0	0	0	0	0	0	60	37	0	0	60	37
16	3698	254	10	7	0	0	0	0	10	7	13	9	1	1	0	0	14	9
17	6460	336	12	8	5	4	0	0	16	9	17	17	94	57	42	24	154	64
18	5829	510	0	0	16	13	6	7	22	15	0	0	22	16	6	7	28	17
19	12092	635	70	37	18	12	2	1	90	39	14	13	177	52	48	32	239	62
20(SG)	36414	2100	3132	441	1610	336	26	20	4768	554	447	162	8982	1115	756	234	10185	1151
28	6060	362	227	55	14	9	0	0	241	56	122	73	162	65	0	0	284	97
29	4521	428	35	14	4	3	0	0	39	14	8	8	161	78	63	66	232	103
Total	109582	3560	4275	499	1915	363	34	21	6224	617	871	217	19071	2991	1029	262	20971	3011

[1]39 unidentified salmon were kept and 5583 unidentified salmon were released in SG in 2007 and were not included.

[2]Rel = Released.

[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-7. SG Sockeye kept[1] by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	21	0	0	0	0	27	21
Aug	0	0	0	0	0	0	0	0	0	0	0	0	7	6	158	86	0	0	0	0	165	86
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	7	6	185	88	0	0	0	0	191	89

[1] Non-retention of Fraser River Sockeye was in place for the entire 2007 season. See "Regulations" p. 7.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-8. SG Sockeye released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	50	38	0	0	224	82	0	0	0	0	274	91
Aug	883	324	0	0	0	0	0	0	0	0	14	12	0	0	919	228	0	0	21	22	1837	397
Sep	26	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	19
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	909	325	0	0	0	0	0	0	0	0	64	40	0	0	1143	243	0	0	21	22	2137	408

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-9. SG odd year Pink kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	46	0	0	0	0	43	46
Jul	120	53	0	0	33	32	0	0	0	0	200	119	162	56	11655	2435	0	0	0	0	12169	2440
Aug	10946	2178	480	160	65	43	0	0	6	6	345	121	1436	251	43939	3051	53	25	87	70	57359	3763
Sep	3174	438	47	35	0	0	0	0	11	10	225	136	207	92	3303	1126	16	9	6	4	6990	1220
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	14	14
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	14240	2222	527	164	98	54	0	0	17	12	770	217	1805	273	58954	4063	69	26	93	70	76574	4648

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-10. SG odd year Pink released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	96	51	0	0	0	0	0	0	0	0	0	0	144	73	3962	827	0	0	0	0	4202	832
Aug	2586	1029	241	115	0	0	0	0	6	6	105	53	288	84	21340	2450	15	9	1	1	24581	2662
Sep	81	48	4	4	0	0	0	0	13	18	58	50	12	12	534	225	0	0	0	0	702	237
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	2763	1031	246	115	0	0	0	0	19	19	163	73	444	112	25835	2596	15	9	1	1	29485	2799

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-11. SG Chum kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	12	14	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	21	16
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep	342	79	0	0	0	0	0	0	0	0	0	0	0	0	53	43	0	0	0	0	395	90
Oct	4897	1240	0	0	0	0	0	0	0	0	4	3	0	0	97	61	17	30	8	8	5023	1242
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	5251	1243	0	0	0	0	0	0	0	0	4	3	0	0	159	76	17	30	8	8	5439	1246

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-12. SG Chum released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	330	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	330	127
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	330	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	330	127

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-13. SG all salmon[1] kept by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	262	85	609	229	-	-	-	-	872	244
Feb	-	-	-	-	-	-	-	-	-	-	-	-	431	130	644	188	-	-	-	-	1075	228
Mar	-	-	-	-	-	-	-	-	-	-	-	-	114	40	284	119	-	-	-	-	398	126
Apr	27	18	-	-	-	-	-	-	-	-	-	-	235	92	215	77	-	-	-	-	477	121
May	161	87	972	1141	175	59	167	46	168	66	72	41	72	53	311	136	30	20	0	0	2126	1159
Jun	1178	215	244	115	373	138	114	43	134	40	81	36	99	39	2184	515	36	18	18	9	4462	592
Jul	1906	434	509	279	115	55	14	9	217	95	200	119	398	74	15989	2505	2	2	9	12	19359	2564
Aug	14465	2361	2036	349	295	109	141	72	151	35	421	124	2112	279	51308	3128	474	108	203	99	71605	3951
Sep	4579	469	819	270	9	7	5	5	195	55	298	142	458	121	6007	1227	282	72	247	96	12898	1360
Oct	4909	1240	0	0	0	0	0	0	0	0	4	3	146	54	1849	389	66	52	20	12	6993	1302
Nov	-	-	-	-	-	-	-	-	-	-	-	-	159	61	266	111	-	-	-	-	425	127
Dec	-	-	-	-	-	-	-	-	-	-	-	-	314	205	142	55	-	-	-	-	456	212
Total	27224	2752	4580	1260	967	193	441	96	865	139	1075	229	4802	430	79806	4257	888	143	497	139	121146	5256

[1]All salmon does not include Atlantics or Steelhead

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-14. SG all salmon[1] released by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	343	122	192	92	-	-	-	-	535	153
Feb	-	-	-	-	-	-	-	-	-	-	-	-	33	21	169	80	-	-	-	-	202	83
Mar	-	-	-	-	-	-	-	-	-	-	-	-	15	9	76	34	-	-	-	-	90	36
Apr	60	34	-	-	-	-	-	-	-	-	-	-	42	29	10	11	-	-	-	-	112	45
May	493	270	13	7	246	76	194	64	96	40	602	229	10	11	39	38	256	106	0	0	1948	387
Jun	2562	444	546	213	771	321	623	148	179	51	142	58	44	29	871	227	271	94	196	85	6206	664
Jul	4811	783	1565	684	647	223	112	44	152	89	150	72	359	92	11799	1337	469	142	287	77	20350	1723
Aug	11614	3182	2780	549	925	351	371	129	297	64	199	67	646	119	29240	2597	719	148	418	170	47210	4169
Sep	4266	518	1432	328	6	6	4	3	524	132	118	62	180	59	4924	837	419	164	580	247	12454	1090
Oct	604	151	0	0	64	47	0	0	34	23	25	17	124	124	2618	735	35	46	153	108	3658	772
Nov	-	-	-	-	-	-	-	-	-	-	-	-	171	98	326	175	-	-	-	-	498	201
Dec	-	-	-	-	-	-	-	-	-	-	-	-	68	66	15	15	-	-	-	-	84	68
Total	24411	3361	6335	961	2659	532	1303	212	1282	185	1237	264	2037	269	50279	3142	2168	302	1635	338	93346	4775

[1]All salmon does not include Atlantics or Steelhead

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-15. SG Halibut kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	117	58	0	0	-	-	-	-	117	58
Mar	-	-	-	-	-	-	-	-	-	-	-	-	123	43	0	0	-	-	-	-	123	43
Apr	0	0	-	-	-	-	-	-	-	-	-	-	314	122	102	52	-	-	-	-	416	133
May	0	0	0	0	0	0	0	0	0	0	0	0	560	167	4	5	0	0	0	0	565	167
Jun	0	0	0	0	0	0	0	0	0	0	0	0	199	163	70	54	0	0	0	0	269	172
Jul	0	0	0	0	0	0	0	0	0	0	0	0	31	11	62	41	0	0	0	0	93	43
Aug	0	0	0	0	0	0	0	0	0	0	0	0	127	39	249	145	0	0	0	0	375	150
Sep	0	0	0	0	0	0	0	0	0	0	0	0	248	101	53	43	0	0	0	0	301	110
Oct	0	0	0	0	0	0	0	0	0	0	0	0	184	117	0	0	0	0	0	0	184	117
Nov	-	-	-	-	-	-	-	-	-	-	-	-	24	33	0	0	-	-	-	-	24	33
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1926	318	541	174	0	0	0	0	2468	363

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-16. SG Halibut released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	5	4	0	0	-	-	-	-	5	4
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	93	78	0	0	0	0	0	0	93	78
Jun	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	5	5
Jul	0	0	0	0	0	0	0	0	0	0	0	0	15	13	9	9	0	0	0	0	24	16
Aug	0	0	0	0	0	0	0	0	0	0	0	0	14	13	12	12	0	0	0	0	25	18
Sep	0	0	0	0	0	0	0	0	0	0	0	0	84	63	15	17	0	0	0	0	99	65
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	5	5	0	0	211	102	35	22	0	0	0	0	251	104

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-17. SG Lingcod kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	2	1	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	2	1
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	38	0	0	0	0	35	38
Jun	7	4	23	17	0	0	0	0	131	44	51	29	0	0	46	32	0	0	0	0	259	64
Jul	489	291	3	3	9	8	189	79	224	121	112	68	55	28	79	33	0	0	0	0	1160	335
Aug	465	378	10	6	0	0	267	128	130	48	58	27	41	19	153	68	0	0	0	0	1123	409
Sep	10	10	0	0	0	0	47	30	116	45	24	20	85	47	112	63	0	0	0	0	394	98
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	3	2	0	0	-	-	-	-	3	2
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	973	477	37	18	9	8	502	153	602	144	245	81	183	58	425	110	0	0	0	0	2975	543

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-18. SG legal Lingcod released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	7	7	0	0	-	-	-	-	7	7
Mar	-	-	-	-	-	-	-	-	-	-	-	-	8	10	4	7	-	-	-	-	12	12
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	3	3	0	0	19	15	0	0	0	0	0	0	190	157	0	0	0	0	0	0	211	158
Jun	34	16	28	24	22	19	0	0	14	13	40	24	7	9	95	92	0	0	0	0	240	102
Jul	0	0	0	0	0	0	0	0	246	118	468	316	43	34	97	48	0	0	0	0	854	342
Aug	0	0	3	2	0	0	56	47	11	7	78	46	80	71	81	45	0	0	0	0	309	107
Sep	81	51	0	0	0	0	0	0	186	62	110	89	36	28	74	49	0	0	0	0	487	132
Oct	0	0	0	0	6	7	0	0	11	8	11	10	0	0	0	0	0	0	0	0	29	15
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	41	56	-	-	-	-	41	56
Dec	-	-	-	-	-	-	-	-	-	-	-	-	27	38	0	0	-	-	-	-	27	38
Total	118	53	30	24	48	25	56	47	469	134	707	332	398	183	392	135	0	0	0	0	2218	432

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-19. SG sub-legal Lingcod released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	13	9	0	0	-	-	-	-	13	9
Feb	-	-	-	-	-	-	-	-	-	-	-	-	81	51	12	13	-	-	-	-	93	53
Mar	-	-	-	-	-	-	-	-	-	-	-	-	134	137	7	8	-	-	-	-	141	137
Apr	14	9	-	-	-	-	-	-	-	-	-	-	87	57	51	30	-	-	-	-	152	65
May	196	124	0	0	0	0	0	0	113	52	107	53	32	25	43	39	0	0	0	0	491	151
Jun	149	62	13	8	13	14	52	24	278	68	0	0	326	121	642	271	0	0	0	0	1473	312
Jul	1667	443	209	126	32	15	226	113	1001	370	442	258	697	203	454	142	0	0	0	0	4727	700
Aug	386	228	225	70	142	81	459	178	330	91	101	41	292	122	439	128	16	9	2	1	2392	369
Sep	139	74	100	94	21	17	85	39	757	266	524	537	507	164	1510	626	0	0	0	0	3643	891
Oct	0	0	0	0	6	7	0	0	11	8	15	14	124	75	145	82	0	0	0	0	302	112
Nov	-	-	-	-	-	-	-	-	-	-	-	-	69	31	95	56	-	-	-	-	164	64
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	30	26	-	-	-	-	30	26
Total	2551	522	547	173	214	85	821	216	2491	473	1188	599	2363	360	3429	718	16	9	2	1	13621	1258

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-20. SG Yelloweye rockfish kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	9	6	0	0	0	0	0	0	0	0	0	0	9	6
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	87	87	6	5	0	0	7	6	5	6	0	0	6	6	0	0	0	0	0	0	111	88
Aug	0	0	10	7	27	20	74	42	18	8	0	0	0	0	12	12	12	8	1	1	153	49
Sep	0	0	0	0	15	13	9	9	19	12	0	0	0	0	0	0	0	0	0	0	43	20
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	87	87	16	8	42	24	89	43	51	17	0	0	6	6	12	12	12	8	1	1	316	103

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-21. SG Yelloweye rockfish released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	27	21	0	0	0	0	0	0	0	0	0	0	27	21
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	15	14	0	0	0	0	20	17	0	0	0	0	0	0	34	22
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	6	7	15	14	27	21	0	0	20	17	0	0	0	0	0	0	67	31

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-22. SG Quillback rockfish kept by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	7	7	44	46	-	-	-	-	51	46
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	10	11	-	-	-	-	10	11
May	0	0	0	0	0	0	0	0	9	6	0	0	0	0	43	39	0	0	0	0	52	39
Jun	56	35	0	0	0	0	0	0	74	37	30	23	40	34	9	10	0	0	0	0	210	66
Jul	153	101	0	0	0	0	371	167	97	86	58	53	91	38	206	98	0	0	0	0	976	243
Aug	201	188	8	5	5	5	684	350	34	11	0	0	60	31	105	61	0	0	0	0	1098	404
Sep	0	0	10	11	3	4	47	24	251	149	11	11	71	31	112	59	0	0	0	0	505	166
Oct	4	5	0	0	0	0	0	0	23	15	0	0	0	0	0	0	0	0	0	0	26	16
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	11	11	-	-	-	-	11	11
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	415	216	18	12	8	6	1103	389	488	177	99	58	270	68	540	144	0	0	0	0	2940	508

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (FFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-23. SG Quillback rockfish released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	19	14	0	0	20	13	72	54	0	0	0	0	0	0	0	0	111	58
Jun	0	0	0	0	116	75	8	4	359	198	30	23	26	27	0	0	0	0	0	0	540	214
Jul	872	869	0	0	78	64	298	195	621	307	288	211	160	93	9	9	0	0	0	0	2326	972
Aug	55	66	0	0	12	7	343	160	119	53	49	37	10	11	206	119	4	4	1	1	800	220
Sep	0	0	0	0	9	7	124	65	173	70	25	25	77	54	156	113	0	0	0	0	564	160
Oct	0	0	0	0	6	7	0	0	0	0	0	0	1	2	0	0	62	63	7	11	77	64
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	928	871	0	0	239	101	774	260	1292	376	465	223	275	112	371	164	66	63	9	11	4418	1035

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-24. SG Copper rockfish kept by month and PFMA[1], 2007.

Month	PFMA																		Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	14	10	12	13	-	-	-	-	26	16
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	31	24	10	11	-	-	-	-	42	26
May	0	0	0	0	0	0	0	0	9	6	36	27	3	3	0	0	0	0	0	0	48	28
Jun	4	3	0	0	0	0	0	0	53	30	80	49	191	116	0	0	0	0	0	0	328	129
Jul	0	0	0	0	0	0	0	0	470	233	115	70	29	19	162	137	242	88	56	25	1075	295
Aug	0	0	10	9	0	0	7	6	121	50	9	6	38	22	69	40	138	49	16	8	408	85
Sep	0	0	0	0	0	0	0	0	184	81	10	13	20	14	103	77	0	0	0	0	318	114
Oct	0	0	0	0	0	0	0	0	23	15	0	0	17	30	0	0	62	63	7	11	109	72
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	4	3	10	9	0	0	7	6	859	254	251	91	345	127	357	163	442	119	78	28	2353	361

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-25. SG Copper rockfish released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	37	28	-	-	-	-	37	28
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	37	16	0	0	0	0	0	0	0	0	0	0	37	16
Jun	0	0	0	0	0	0	0	0	328	156	105	69	26	27	0	0	0	0	0	0	459	173
Jul	0	0	0	0	0	0	0	0	759	238	733	526	0	0	0	0	36	23	3	3	1532	577
Aug	0	0	0	0	0	0	0	0	100	38	35	22	0	0	0	0	0	0	0	0	135	44
Sep	0	0	0	0	0	0	0	0	344	113	30	32	21	25	0	0	0	0	0	0	394	120
Oct	0	0	0	0	0	0	0	0	34	18	7	5	0	0	0	0	0	0	0	0	41	18
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	1602	310	910	532	46	36	37	28	36	23	3	3	2634	617

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-26. SG China rockfish kept by month and PFMA[1], 2007.

Month	PFMA																				Fst Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	0	0	0	0	0	14	14
Aug	0	0	0	0	0	0	13	13	0	0	0	0	13	18	0	0	0	0	0	0	26	22
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	77	0	0	0	0	97	77
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	13	13	0	0	0	0	28	23	97	77	0	0	0	0	138	82

[1]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-27. SG China rockfish released by month and PFMA[1], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	10	14	0	0	0	0	0	0	10	14
Sep	0	0	0	0	0	0	0	0	0	0	0	0	13	10	0	0	0	0	0	0	13	10
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	23	17	0	0	0	0	0	0	23	17

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-28. SG Tiger rockfish kept by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0	0	0	30	23	0	0	0	0	0	0	0	0	30	23
Jul	0	0	0	0	9	8	0	0	0	0	58	53	0	0	0	0	0	0	0	0	66	53
Aug	0	0	0	0	0	0	41	32	0	0	0	0	0	0	0	0	12	8	1	1	54	33
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	0	0	9	8	41	32	0	0	88	57	0	0	0	0	12	8	1	1	151	67

Note: no Tiger Rockfish were reported released in 2007.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-29. SG other rockfish[1] kept by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Mar	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Apr	0	0	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
May	0	0	0	0	0	0	0	0	0	0	72	54	13	11	0	0	0	0	0	0	84	55
Jun	0	0	0	0	0	0	0	0	5	4	0	0	0	0	28	29	0	0	0	0	33	29
Jul	0	0	0	0	0	0	0	0	162	111	0	0	0	0	54	44	0	0	0	0	217	119
Aug	0	0	10	9	0	0	0	0	45	26	76	49	0	0	60	36	0	0	0	0	191	66
Sep	0	0	0	0	0	0	0	0	0	0	0	0	64	51	195	132	0	0	0	0	258	142
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Total	0	0	10	9	0	0	0	0	212	114	148	73	77	52	336	147	0	0	0	0	783	206

[1]Other rockfish means other than Tiger, Yelloweye, China, Copper, and Quillback.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix D-30. SG other rockfish[1] released by month and PFMA[2], 2007.

Month	PFMA																				Est Total	SE Total
	13		14		15		16		17		18		19		20(SG)		28		29			
	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE	Est	SE		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	0	0
Feb	-	-	-	-	-	-	-	-	-	-	-	-	56	29	24	25	-	-	-	-	80	38
Mar	-	-	-	-	-	-	-	-	-	-	-	-	39	22	19	18	-	-	-	-	58	29
Apr	39	21	-	-	-	-	-	-	-	-	-	-	81	30	10	11	-	-	-	-	130	38
May	130	108	0	0	0	0	0	0	27	14	0	0	201	169	78	77	0	0	0	0	436	215
Jun	222	93	42	28	0	0	0	0	136	56	262	99	89	40	594	205	0	0	0	0	1344	257
Jul	958	367	335	179	5	4	0	0	1230	475	288	213	589	233	340	135	0	0	0	0	3745	714
Aug	1009	773	222	68	0	0	110	53	497	235	74	50	307	110	459	143	104	52	10	7	2792	835
Sep	152	64	90	73	0	0	57	33	517	289	25	34	233	96	867	403	0	0	0	0	1942	516
Oct	28	18	0	0	0	0	0	0	0	0	0	0	6	6	55	34	0	0	0	0	90	39
Nov	-	-	-	-	-	-	-	-	-	-	-	-	27	26	21	17	-	-	-	-	48	31
Dec	-	-	-	-	-	-	-	-	-	-	-	-	0	0	52	34	-	-	-	-	52	34
Total	2539	870	689	206	5	4	167	62	2408	606	649	242	1627	329	2519	503	104	52	10	7	10717	1262

[1]Other rockfish means other than Tiger, Yelloweye, China, Copper, and Quillback.

[2] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-1. SG kept and released CPUE for salmon, Lingcod, and Halibut by month, 2007.

Month	Kept								Released							
	Chinook	Coho	Sockeye	Pink	Chum	Total Salmon[1] Kept	Halibut	Lingcod	Chinook	Coho	Sockeye	Pink	Chum	Total Salmon[1] Rel.[2]	Halibut	Lingcod
Jan	0.77	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.46	0.01	0.00	0.00	0.00	0.47	0.00	0.01
Feb	0.72	0.00	0.00	0.00	0.00	0.72	0.08	0.00	0.14	0.00	0.00	0.00	0.00	0.14	0.00	0.07
Mar	0.35	0.00	0.00	0.00	0.00	0.35	0.11	0.00	0.08	0.00	0.00	0.00	0.00	0.08	0.00	0.13
Apr	0.23	0.00	0.00	0.00	0.00	0.23	0.20	0.00	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.07
May	0.18	0.00	0.00	0.00	0.00	0.18	0.05	0.00	0.17	0.00	0.00	0.00	0.00	0.17	0.01	0.06
Jun	0.39	0.00	0.00	0.00	0.00	0.40	0.02	0.02	0.55	0.00	0.00	0.00	0.00	0.55	0.00	0.15
Jul	0.27	0.07	0.00	0.57	0.00	0.91	0.00	0.05	0.46	0.24	0.01	0.20	0.00	0.91	0.00	0.26
Aug	0.38	0.04	0.00	1.73	0.00	2.16	0.01	0.03	0.33	0.26	0.06	0.74	0.00	1.39	0.00	0.08
Sep	0.19	0.09	0.00	0.36	0.02	0.66	0.02	0.02	0.21	0.34	0.00	0.04	0.00	0.59	0.01	0.21
Oct	0.06	0.30	0.00	0.00	0.94	1.31	0.03	0.00	0.11	0.12	0.00	0.00	0.06	0.30	0.00	0.06
Nov	0.51	0.01	0.00	0.00	0.00	0.53	0.03	0.00	0.41	0.00	0.00	0.00	0.00	0.41	0.00	0.25
Dec	0.43	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.08	0.00	0.05
Total	0.30	0.06	0.00	0.70	0.05	1.11	0.02	0.03	0.32	0.19	0.02	0.27	0.00	0.80	0.00	0.14

[1]Total includes species listed in table only.

[2]Rel. = released.

[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-2. SG kept and released CPUE for Tiger, Yelloweye, China, Copper, Quillback and other rockfish by Month, 2007.

Month	Kept							Released						
	Tiger	Yelloweye	China	Copper	Quillback	All Other Rockfish[1]	Rockfish Total Kept	Tiger	Yelloweye	China	Copper	Quillback	All Other Rockfish[1]	Rockfish Total Rel.[2]
Jan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb	0.00	0.00	0.00	0.02	0.03	0.00	0.05	0.00	0.00	0.00	0.02	0.00	0.05	0.08
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
Apr	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.06	0.06
May	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.01	0.04	0.05
Jun	0.00	0.00	0.00	0.03	0.02	0.01	0.06	0.00	0.00	0.00	0.04	0.05	0.12	0.21
Jul	0.00	0.01	0.00	0.05	0.05	0.02	0.12	0.00	0.00	0.00	0.07	0.11	0.18	0.36
Aug	0.00	0.00	0.00	0.01	0.03	0.01	0.06	0.00	0.00	0.00	0.00	0.02	0.09	0.12
Sep	0.00	0.00	0.01	0.02	0.03	0.02	0.07	0.00	0.00	0.00	0.02	0.03	0.10	0.15
Oct	0.00	0.00	0.00	0.02	0.00	0.01	0.03	0.00	0.00	0.00	0.01	0.01	0.02	0.04
Nov	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.06	0.06
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
Total	0.00	0.00	0.00	0.02	0.03	0.01	0.06	0.00	0.00	0.00	0.02	0.04	0.10	0.17

[1]See Appendix G for a description of identified species included in Other Groundfish.

[2]Rel. = released.

[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-3. SG kept and released CPUE for all salmon, all groundfish, and all rockfish by month[1], 2007.

Month	Kept			Released		
	Salmon	Groundfish	Rockfish	Salmon	Groundfish	Rockfish
Jan	0.77	0.00	0.00	0.47	0.03	0.00
Feb	0.72	0.13	0.05	0.14	0.30	0.08
Mar	0.35	0.15	0.00	0.08	0.45	0.05
Apr	0.23	0.28	0.02	0.05	0.22	0.06
May	0.18	0.17	0.02	0.17	0.44	0.05
Jun	0.40	0.11	0.06	0.56	0.57	0.21
Jul	0.91	0.17	0.12	0.96	0.84	0.36
Aug	2.16	0.12	0.06	1.42	0.40	0.12
Sep	0.66	0.19	0.07	0.64	0.47	0.15
Oct	1.31	0.18	0.03	0.69	0.36	0.04
Nov	0.53	0.04	0.01	0.62	0.32	0.06
Dec	0.43	0.04	0.00	0.08	0.16	0.05
Total	1.11	0.15	0.06	0.85	0.51	0.17

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-4. SG kept and released CPUE for salmon, Lingcod, and Halibut by PFMA, 2007.

PFMA	Kept								Released							
	Chinook	Coho	Sockeye	Pink	Chum	Total Salmon[1] Kept	Halibut	Lingcod	Chinook	Coho	Sockeye	Pink	Chum	Total Salmon[1] Rel.[2]	Halibut	Lingcod
13	0.35	0.04	0.00	0.72	0.27	1.38	0.00	0.05	0.54	0.47	0.05	0.14	0.02	1.22	0.00	0.14
14	0.31	0.02	0.00	0.04	0.00	0.37	0.00	0.00	0.45	0.04	0.00	0.02	0.00	0.51	0.00	0.05
15	0.36	0.00	0.00	0.04	0.00	0.40	0.00	0.00	1.07	0.02	0.00	0.00	0.00	1.10	0.00	0.11
16	0.12	0.00	0.00	0.00	0.00	0.12	0.00	0.14	0.35	0.00	0.00	0.00	0.00	0.35	0.00	0.24
17	0.13	0.00	0.00	0.00	0.00	0.13	0.00	0.09	0.17	0.02	0.00	0.00	0.00	0.20	0.00	0.46
18	0.05	0.00	0.00	0.13	0.00	0.18	0.00	0.04	0.17	0.00	0.01	0.03	0.00	0.21	0.00	0.33
19	0.24	0.01	0.00	0.15	0.00	0.40	0.16	0.02	0.10	0.02	0.00	0.04	0.00	0.15	0.02	0.23
20(SG)	0.43	0.13	0.01	1.62	0.00	2.19	0.01	0.01	0.22	0.28	0.03	0.71	0.00	1.25	0.00	0.10
28	0.09	0.04	0.00	0.01	0.00	0.15	0.00	0.00	0.31	0.05	0.00	0.00	0.00	0.36	0.00	0.00
29	0.08	0.01	0.00	0.02	0.00	0.11	0.00	0.00	0.31	0.05	0.00	0.00	0.00	0.36	0.00	0.00
Total	0.30	0.06	0.00	0.70	0.05	1.11	0.02	0.03	0.32	0.19	0.02	0.27	0.00	0.80	0.00	0.14

[1]Total includes species listed in table only.

[2]Rel. = released.

[3] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-5. SG kept and released CPUE for Tiger, Yelloweye, China, Copper, Quillback and other rockfish by PFMA[3], 2007.

PFMA	Kept							Released						
	Tiger	Yelloweye	China	Copper	Quillback	All Other Rockfish[1]	Rockfish Total Kept	Tiger	Yelloweye	China	Copper	Quillback	All Other Rockfish[1]	Rockfish Total Rel.[2]
13	0.00	0.00	0.00	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.05	0.13	0.18
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06
15	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.10	0.00	0.10
16	0.01	0.02	0.00	0.00	0.30	0.00	0.34	0.00	0.00	0.00	0.00	0.21	0.05	0.26
17	0.00	0.01	0.00	0.13	0.08	0.03	0.25	0.00	0.00	0.00	0.25	0.20	0.39	0.84
18	0.02	0.00	0.00	0.04	0.02	0.03	0.10	0.00	0.00	0.00	0.16	0.08	0.11	0.35
19	0.00	0.00	0.00	0.03	0.02	0.01	0.06	0.00	0.00	0.00	0.00	0.02	0.14	0.17
20(SG)	0.00	0.00	0.00	0.01	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.01	0.07	0.09
28	0.00	0.00	0.00	0.07	0.00	0.00	0.08	0.00	0.00	0.00	0.01	0.01	0.02	0.03
29	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.02	0.03	0.01	0.06	0.00	0.00	0.00	0.02	0.04	0.10	0.17

[1]See Appendix G for a description of identified species included in Other Groundfish.

[2]Rel. = released.

[3]In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix E-6. SG kept and released CPUE for all salmon, all groundfish, and all rockfish by PFMA[1], 2007.

PFMA	Kept			Released		
	Salmon	Groundfish	Rockfish	Salmon	Groundfish	Rockfish
13	1.38	0.07	0.03	1.24	0.37	0.18
14	0.37	0.03	0.01	0.51	0.43	0.06
15	0.40	0.04	0.02	1.10	0.14	0.10
16	0.12	0.35	0.34	0.35	0.57	0.26
17	0.13	0.18	0.26	0.20	1.19	0.84
18	0.18	0.15	0.10	0.21	1.16	0.35
19	0.40	0.29	0.07	0.17	1.03	0.17
20(SG)	2.19	0.09	0.04	1.38	0.33	0.09
28	0.15	0.38	0.08	0.36	0.12	0.03
29	0.11	0.45	0.02	0.36	0.16	0.00
Total	1.11	0.15	0.06	0.85	0.51	0.17

[1] In 2007 only PFMA 19 and 20 (SG) were surveyed throughout the year. All other areas (PFMA's 13 to 18, 28 and 29) were surveyed between May and October. Additional coverage took place in PFMA 13 in April.

Appendix F. Taxonomic reference of species reported.

*Listed alphabetically by common name.

Atlantic Salmon	*Salmo salar*
Black Rockfish	*Sebastes melanops*
Cabezon	*Scorpaenichthys marmoratus*
Canary Rockfish	*Sebastes pinniger*
China Rockfish	*Sebastes nebulosus*
Chinook Salmon	*Oncorhynchus tshawytscha*
Chum Salmon	*Oncorhynchus keta*
Coho Salmon	*Oncorhynchus kisutch*
Copper Rockfish	*Sebastes caurinus*
Dogfish (Spiny Dogfish)	*Squalus acanthias*
English Sole	*Parophrys vetulus*
Flatfishes	*Heterosomata, Plueronectiforme spp.*
Flounder	*Bothidae, Paralichthyidae, Pleuronectidae spp.*
Greenling	*Hexagrammos, Oxylebius spp.*
Halibut	*Hippoglossus stenolepis*
Herring (Pacific Herring)	*Clupea pallasi*
Lingcod	*Ophiodon elongatus*
Not Identified Salmonids	*Salmoninae spp.*
Other Rockfish	*Sebastes, Sebastolobus spp.*
Other sole	*Soleidae, Achiridae, Cynoglossidae, Pleuronectidae spp.*
Pacific Cod	*Gadus macrocephalus*
Pacific Sandab	*Citharichthys sordidus*
Pacific Tomcod	*Microgadus proximus*
Perches	*Embiotocidae spp.*
Pink Salmon	*Oncorhynchus gorbuscha*
Quillback Rockfish	*Sebastes maliger*
Ratfish	*Hydrolagus colliei*
Red Irish Lord	*Hemilepidotus hemilepidotus*
Redstripe (Redbanded) Rockfish	*Sebastes babcocki*
Rock Sole	*Lepidopsetta bilineata, Lepidopsetta polyxystra*
Sculpins	*Cottoidei spp.*
Skates	*Rajidae spp.*
Sockeye Salmon	*Oncorhynchus nerka*
Starry flounder	*Platichthys stellatus*
Tiger Rockfish	*Sebastes nigrocinctus*
Vermillion Rockfish	*Sebastes miniatus*
Yellow Eye Rockfish	*Sebastes rubberimus*
Yellow Tail Rockfish	*Sebastes flavidus*

Appendix G. Species included in 'Other Groundfish' and 'Other Rockfish' groupings.

Other Groundfish	Other Rockfish
Cabezon	Vermillion Rockfish
English Sole	Other Rockfish
Flatfishes	
Flounder	
Herring (Pacific Herring)	
Other sole	
Other Groundfish	
Pacific Cod	
Pacific Sandab	
Pacific Tomcod	
Perches	
Ratfish	
Red Irish Lord	
Sculpins	
Skates	

Appendix H. Tidal effort statistics and sport catch estimates of Chinook and Coho for the SG, 1960 to 1982.

Year	Effort[1] (boat trips)	Catch	
		Chinook	Coho
1960	189,150	83,000	238,000
1961	199,935	63,000	152,000
1962	205,547	86,000	167,000
1963	247,590	65,000	199,000
1964	198,120	51,000	182,000
1965	250,020	53,000	175,000
1966	259,100	80,000	249,000
1967	254,500	115,000	200,000
1968	265,030	150,000	250,000
1969	281,475	185,000	200,000
1970	306,255	220,000	500,000
1971	341,123	255,000	800,000
1972	300,349	287,000	335,000
1973	293,141	272,000	373,000
1974	443,441	269,000	772,000
1975	334,490	398,000	454,000
1976	340,729	490,000	415,000
1977	363,350	372,000	682,000
1978	369,035	500,000	1,103,000
1979	404,710	350,000	708,735
1980	510,400	204,100	393,500
1981	494,604	197,239	317,091
1982	559,395	124,390	411,686

SOURCE: Hardie et al 2003.
[1]Effort prior to 1980 (the start of the creel survey) may not represent boat trips.

Appendix I. Species and PFMA specific tidal regulations for major finfish in the SG, 2007.

- Effective June 15, 2007 to September 30, 2007, hook and line fishing only, you may retain one (1) Lingcod per day with annual limit of ten (10) in PFMA's 13-19 including Sub-PFMA 29-5. PFMA 28 and the balance of PFMA 29 will remain closed due to continued concern for low abundance. Minimum size for Lingcod is 65 cm. A recreational fishing mortality of 5,000 pieces has been determined as the allowable catch to ensure continued rebuilding of the Lingcod population within the SG. The effort and catch within the fishery will be monitored. If the monitoring program indicates that the allowable catch may be reached before September 30, 2007, the fishery will be closed.

- Anglers are reminded that there are now 164 Rockfish Conservation Areas (RCA's) coastwide and that angling with hook and line gear and spear fishing is prohibited in these areas. Maps and descriptions of RCA's are available on the DFO website and at local DFO offices.

- To ensure that conservation requirements are met, the recreational rockfish fishery will operate concurrently with the Lingcod fishery. The rockfish fishery will open on June 15, 2007 and close on September 30, 2007. The daily bag limit is one (1).

- Effective until December 31, 2007 in PFMA's 13 to 19, inclusive you may retain two (2) adipose clipped Coho salmon per day, except in those waters and during those times described below:

PFMA 13

Effective 00:01 hours August 15, 2007 until 23:59 hours September 15, 2007 you may retain two (2) Coho per day, one (1) of which may be adipose unmarked in the following areas:

Sub-PFMA's 13-20 and 13-21 (East Side of Stuart Island and a portion of Bute Inlet).

PFMA 14

Effective September 1 to December 31 you may retain two (2) Coho per day (adipose marked or unmarked), one (1) of which may be unmarked in the following areas:

Sub-PFMA 14-11 (Baynes Sound inside a line from the Cape Lazo Light, then to the P-54 Bell Buoy on Comox Bar, then to Longbeak Point, then to the mouth of Hart (Washer) Creek).

PFMA 16

Effective June 1 to December 31 you may retain four (4) adipose marked Coho per day in the following area of Sechelt Inlet and Porpoise Bay, southerly of a line from Nine Mile Point to a boundary sign on the opposite shore.

PFMA 18

Effective November 1 to December 31 you may retain two (2) Coho per day (adipose marked or unmarked) in Sub-PFMA 18-8, inside of a line between Separation Point and Cherry Point.

Cowichan Bay (sub-PFMA 18-8) and portion of Satellite Channel (sub-PFMA 18-7) inside a line or westward of a line from the light at Separation Point to the Triangular White Boundary sign on Hatch Point effective 00:01 hours November 1, 2007 to 23:59 hours December 31, 2007 the daily limit:

- For Coho salmon (over 30cm) will be two (2) per day,
- The remaining portions of sub-PFMA 18-7 and PFMA 18 will remain at two (2) adipose marked Coho over 25 cm per day.

PFMA 19

Effective October 1 to December 31 you may retain two (2) Coho per day (adipose marked or unmarked) of which one may be unmarked.

- The following is a description of conservation measures which are implemented annually to protect Lower Georgia Strait Chinook, in particular Cowichan River Chinook. The Chinook conservation measures are implemented in PFMA's 13 to 15 and 17 to 19 in the Strait of Georgia. The dates for initiating the conservation measures are presented below:

PFMA 13 Fin Fish Closure

Effective July 15 to August 31 the following waters will be closed to fishing for all finfish:

In those waters inside a line from the float at Yaculta Indian Village on Quadra Island true west one nautical mile, thence southeast 1600 true to the intersection with a line drawn from the fishing boundary sign on Willow Point to the Wilby Shoal light buoy, thence to the Cape Mudge light on Quadra Island.

PFMA's 14, 15, 17, 18 Chinook Salmon Non-retention Closure

PFMA 14

Effective May 1 to August 31 there is non-retention of Chinook salmon in the following waters:

Sub-PFMA 14-11. [Baynes Sound inside a line from the Cape Lazo Light, then to the P-54 Bell Buoy on Comox Bar, then to Longbeak Point, then to the mouth of Hart (Washer) Creek].

Effective June 1 to June 30 there is non-retention of Chinook salmon in the following waters:

Those waters, inside a line from 49° 46.74' N and 124° 59.06' W near the boat launch at Kitty Coleman Provincial Park, thence north-easterly to 49° 47.35' N and 124° 57.68' W, thence southerly to 49° 45.14' N and 124° 54.32' W, thence southwest to the navigation light at the Little River Ferry Dock.
Those waters of Sentry Shoals within a 1.50Nm radius of the Sentry Shoal Marker Buoy.

Effective June 15 to August 15 there is non-retention of Chinook salmon in the following waters:

Those waters of Lambert channel bounded from a marker off Nile Creek, north along Vancouver shoreline to Mapleguard Point, thence along the Harbour limit boundary to southern point of Chrome Island, then to southern tip of Denman Island, thence north along shore to Whalebone Point, thence to Shingle Spit on Hornby Island, thence along the shore to Norman Point, thence south from Norman Point 2.4Nm to a position (49° 28.25' N and 124° 36.54' W), and back to Nile Creek marker.

PFMA 15

Effective June 15 to August 15 there is non-retention of Chinook salmon in the following waters:

Those waters of Algerine and Shearwater Passages bounded by a line from the southern most point of Harwood Island southerly to the navigational light on Rebecca Rocks hence northwest to the easterly most point to Vivian Island then northerly to the navigational marker at Mystery Reef hence west to the navigational marker on Atrevida Reef then southerly to the northern most point of Harwood Island then hence along the western shore of Harwood Island back to the point of commencement at the most southerly tip of Harwood Island.

Effective May 1 to September 30 there is non-retention of Chinook salmon in the following waters:

In Sub-PFMA 15-6 [Toba Inlet] those waters easterly of a line from Snout Point to the opposite shore.

PFMA 17

Effective August 1 to October 15 there is non-retention of Chinook salmon in the following waters:

In Sub-PFMA 17-4, except for those waters southeasterly of a line from Shingle

Point to Pilkey Point and Sub-PFMA's 17-5 to 17-7, 17-9, 17-13 to 17-17, [Northumberland Channel, Pylades Channel, Stuart Channel], thence a portion of Sub-PFMA 17-12 inside a line from Tinson Point to Snake Island Light to the outer Five Finger Island group to Neck Point.

In Sub-PFMA's 17-18 to 17-20 and a portion of 17-12 those waters inside a line from Icarus Point on Vancouver Island true north 2 nm, thence northwesterly to the Navy buoy in Ballenas Channel, thence to Nankivell Point at the entrance to Schooner Cove on Vancouver Island.

PFMA 18

Effective August 1 to October 15 there is non-retention of Chinook salmon in the following waters:

In Sub-PFMA's 18-6 to 18-8, 18-10 (Fulford Harbour, Satellite Channel, Shute Passage, Sansum Narrows).

In Sub-PFMA's 18-7 and 18-8, that portion of Sub-PFMA 18-7 that lies northerly of a line from a square white boundary sign on Vancouver Island, near 48°46.179' N and 123° 34.654' W, to a square white boundary sign on Saltspring Island SE of Burial Islet, near 48° 45.992' N and 123° 33.777' W, and southerly of a line from a square white boundary sign on Saltspring Island approximately 1.5 nautical miles ESE of Musgrave Point, near 48° 43.982' N and 123° 31.418' W, to a square white boundary sign on Vancouver Island approximately 0.5 nautical miles NW of Cherry Point, near 48° 43.197' N and 123° 33.708' W.

PFMA 19

Effective August 1 to October 15 there is non-retention of Chinook salmon in Sub-PFMA's 19-7 to 19-10.

- May 24, 2007 to September 30, 2007 Chinook non-retention in a portion of Bute Inlet, Sub-PFMA's 13-21 and 13-22 commonly known and described as those waters of Bute Inlet lying Northerly, inside of a line running from a marker at Alpha Bluff to a marker on the opposite shore to the RCA boundary at the head of Bute Inlet.

- January 1, 2007 to December 31, 2007 Chinook non-retention in a portion of Toba Inlet, Sub PFMA 15-6 commonly know and described as those waters of Toba Inlet lying inside a line drawn from Snout Point to a boundary sign on the opposite shore.

- Effective 00:01 June 27 to December 31, 2007, the minimum size limit for Chinook salmon in the waters of Sechelt Inlet (Porpoise Bay), south of a line from Nine-Mile Point true West to a boundary marker on the opposite shore, is 41 cm.

- Effective 00:01 hours June 1, 2007 to 24:00 hours May 31, 2008, all fishing activity is prohibited along the shoreline of West Vancouver as described. This closure is being put into effect to assist the West Vancouver Municipality with their longer term vision of marine integrity as much of this shoreline is contained within Whytecliff Park and Lighthouse Park.

- The following listings are the current salmon daily limits and Management Measures in place for PFMA 28 (tidal portion only) from August 1:

Chinook:
PFMA 28 open until December 31
Two (2) per day with a minimum size limit of 62 cm.

Coho:
Sub-PFMA's 28-1 to 28-10 open until December 31
Two (2) adipose marked fish per day

Sub-PFMA's 28-11 to 28-14 (Burrard Inlet east of Second Narrows/ Iron Workers Memorial Bridge, Indian Arm and Port Moody Arm) open from October 1 to March 31.

Pink:
PFMA 28 open until December 31 except for sub-PFMA 28-3 to 28-5 and that portion of sub-PFMA 28-2 that lies northerly of a line from Halkett Point on Gambier Island 62° true to a boundary sign north of Alberta Bay. Four (4) per day.

Sub-PFMA 28-3 to 28-5 and that portion of sub-PFMA 28-2 that lies northerly of a line from Halkett Point on Gambier Island 62° true to a boundary sign north of Alberta Bay open until December 31. 2 per day.

Chum:
PFMA 28 open until December 31.
Four (4) per day

- Effective 00:01 July 15, 2007 until September 15, 2007, the daily limit for pink salmon is four (4) per day with zero (0) retention for other species of salmon in the following areas:

1) That portion of Nanaimo Harbour shoreward of a line from the end of the most southerly dock located at the Nanaimo Yacht Club (49°10.614' N 123° 56.336' W) to the Pedestrian Fishing Pier (Crab Dock) located at Swy-a-lana Lagoon (49° 10.264' N 123° 56.051' W). (Note: The area open for Pink Salmon retention reverts to a no fin fishing area from Sept 16 to Oct 25).
2) That portion of Departure Bay westerly of a line running from the following coordinates 49° 12.600' N 123° 57.350' W near the Pacific Biological Station to the light on Brandon Island 49°1 2.427' N 123° 57.571' W to the most westerly BC Ferry dock located at approximately 49° 11.672' N 123° 57.372' W.

- The daily limit for pink salmon of four (4) per day with zero (0) retention for other species of salmon has been extended until 24:00 hours October 15, 2007, in the following areas:

1) That portion of Nanaimo Harbour shoreward of a line from the end of the most southerly dock located at the Nanaimo Yacht Club (49° 10.614' N 123° 56.336' W) to the Pedestrian Fishing Pier (Crab Dock) located at Swy-a-lana Lagoon (49° 10.264' N 123° 56.051' W). (Note: The area open for Pink Salmon retention reverts to a no fin fishing area from Sept 16 to Oct 25).
2) That portion of Departure Bay westerly of a line running from the following coordinates 49° 12.600' N 123° 57.350 W near the Pacific Biological Station to the light on Brandon Island 49° 12.427' N 123° 57.571' W to the most westerly BC Ferry dock located at approximately 49° 11.672' N 123° 57.372' W.

- Effective July 23, 2007 until further notice, the daily limit for pink salmon is two per day in Sub-PFMA's 28-3 to 28-5 and that portion of Sub-PFMA 28-2 that lies northerly of a line from Halkett Point on Gambier Island 62° true to a boundary sign north of Alberta Bay. The number of pink salmon returning to the Squamish system may be low for the next few years due to impacts from the August 5, 2005 caustic soda chemical spill. This action will be re-evaluated in-season when pink salmon begin returning to the area.

- Effective October 1, 2007 to October 31, 2007, there will be a fin fishing closure in those waters of Sub-PFMA 13-13 that lie south easterly of a line from a square white fishing boundary sign at the entrance to Rebecca Spit Marine Park to a square white fishing boundary sign on the opposite shore [Drew Harbour].

- Cowichan Bay (18-8) and portion of Satellite Channel (18-7) Inside a line or westward of a line from the light at Separation Point to the Triangular White Boundary sign on Hatch Point effective 00:01 hours November 1, 2007 to 23:59 hours December 31, 2007 the daily limit:

- for Coho salmon (over 30cm) will be two (2) per day,

The remaining portions of sub-PFMA 18-7 and PFMA 18 will remain at 2 adipose clipped Coho over 25 cm per day.

PFMA 19 will remain at 2 Coho over 30 cm per day of which only one may be adipose unmarked.